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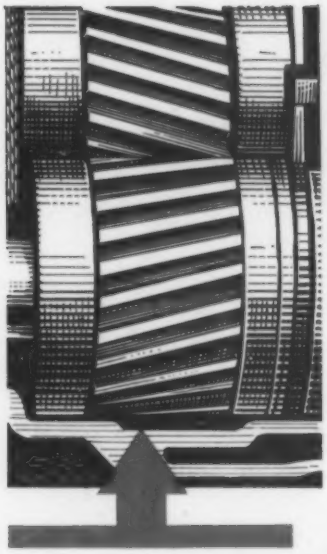
FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

ol. 88, No. 2 FEBRUARY, 1935 Member A.B.C.—A.B.P.

A Good Example of Heat Transfer by Radiation. When a Hat Cleaning Store in Brooklyn Took Fire, the Blast of Flame, Which Broke the Window, Was Sufficient to Ignite Paper in the Waste Can Across the Wide Sidewalk, as Shown in Illustration; Window Frames on the Floor Above Were Also Ignited by This Same Means



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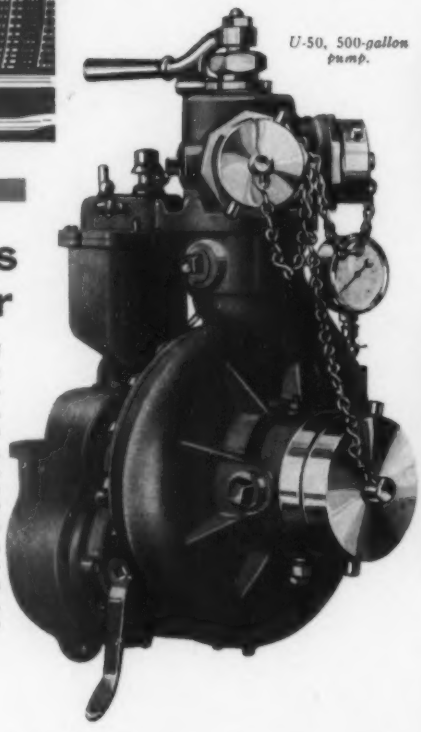
. . . . that's why in the Front Mounted Class ONLY Barton Pumps Meet Underwriters' Tests



U-50, 500-gallon pump.

These Gears Save Motor

Shown above is a close-up of our geared drive. This drive operates the Barton Pump at approximately twice motor speed. Even when delivering water from suction at 250 pounds pressure, motor speeds are not excessive. A motor with throttle wide open is a motor that won't stand up very long. Our geared drive protects you. It operates in an oil bath in the water-cooled transmission case. It has never caused the least trouble. We have never made a single replacement.

A Barton Centrifugal Pump delivers water from any source; clean water from hydrant or booster tank; dirty water from a river, pond, cistern, etc.

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Because of front drive and use of standard low cost chassis, a Barton saves hundreds of dollars in cost of complete apparatus.

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Thus again we say BEWARE of cheap imitations. When you buy a fire pump too much is at stake to try any foolish experiments. To take full advantage of the great economies of a front mounted centrifugal fire pump YOU MUST INSIST ON A BARTON. There is no substitute worth considering. Write for our Bulletin 75 and know the facts. AMERICAN STEAM PUMP COMPANY, Battle Creek, Michigan.

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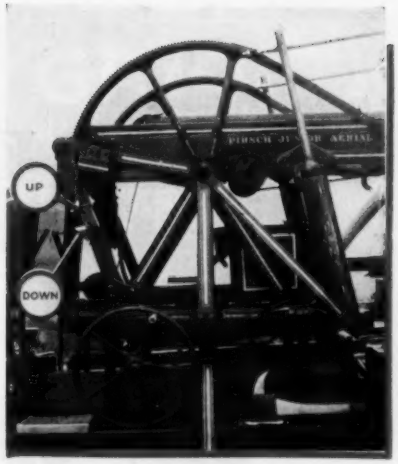
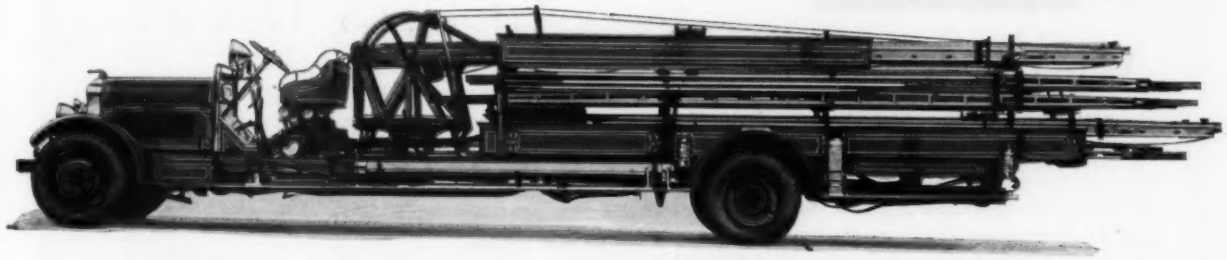
or DOWN she comes





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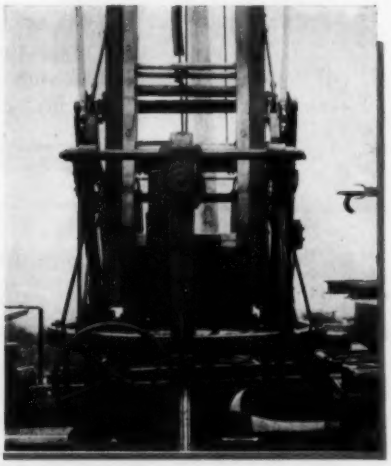

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A Consolidation of FIRE AND WATER ENGINEERING *and* THE FIRE ENGINEER

FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

R. H. LOCKWOOD, Associate Editor — FRED SHEPPERD, Editor — N. N. WOLPERT, Assistant Editor

Where Merit Wins

CHIEF Henry B. Knickerbocker of the Pine Plains Hose Co., Pine Plains, N. Y., apparently believes that the way to reward efficiency is to provide the means for making possible even greater efficiency; and that's where he himself deserves to be decorated for able leadership and good judgment.

● Writes Chief Knickerbocker: *"Perhaps it may interest you to know that I have been a subscriber to* FIRE ENGINEERING *for a little over two years and find so much good in the magazine that I am giving a year's subscription as a prize to the member of our company who had the best attendance at regular meetings and alarms for the year* 1934. *Enclosed find check for Two Dollars for which please enter on your list the name of Orville K. Rowe, the winner.* FIRE ENGINEERING *has been very helpful and instructive to me in my search for improvement in this great work of fire protection."*

● We naturally feel happy to get such recognition. It's one of those things that spur us on toward making FIRE ENGINEERING an even bigger and better magazine.

The Publishers

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MEMBER Audit Bureau of Circulations Associated Business Papers

Published the tenth of each month by
CASE-SHEPPERD-MANN PUBLISHING CORPORATION
Also publishers of "Water Works Engineering" and "Municipal Sanitation"
General Offices—24 West 40th St., New York

SUBSCRIPTION PRICE
U. S., $2 a year; Canada, $2.50
Foreign, $3; Single Copies, 25c

KARL M. MANN, President — I. HERBERT CASE, Vice-Pres. and General Manager — JESSE H. NEAL, Vice-President — W. J. GIBSON, Advertising Manager — H. S. ESSEX, Production Manager

CHICAGO: 6 N. Michigan Ave.—W. S. CLEVENGER, L. M. ROCHE; SAN FRANCISCO: 1045 Sansome St.—CHARLES H. WOOLLEY

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Entered as second class matter April 15, 1929, at the Post Office at New York, N. Y., under the Act of March 3, 1879.
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DUAL GRIP
Beveled Lug Fire Hose Coupling
FOR *SPEED* AND SAFETY

Adopt this Famous Combination

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BEVELED LUG

Safety Fire Hose Coupling

The shallow, wrench guiding grooves seen in this illustration of the DUAL GRIP BEVELED COUPLING prevents the wrench from slipping sideways. This groove also guides the wrench in locating center of the lug quickly and accurately.

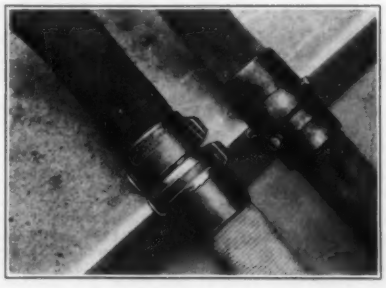
DUAL GRIP BEVELED LUG COUPLINGS ARE RECOMMENDED AND APPROVED BY THE NATIONAL BOARD OF FIRE UNDERWRITERS.

PISTOL GRIP

Fire Hose Coupling Wrench

Snaps on the coupling lug and stays there automatically without fail until the coupling operation has been completed. THINK WHAT A TREMENDOUS ADVANTAGE THIS FEATURE IS, ESPECIALLY AT NIGHT OR IN ZERO WEATHER. Consider, also, the fact that injury often experienced with spanner wrenches of other types slipping off the coupling lug is eliminated with the PISTOL GRIP WRENCH.

Fits DUAL GRIP BEVELED and all lug type couplings, including pin lug. Made of special aluminum alloy so strong that one end can be used as a window pry and gas shut-off. Is light in weight and no longer than common type spanner wrenches.



The broad, flat and tapered ends of lugs on the DUAL GRIP BEVELED LUG COUPLING permit fire hose equipped with this coupling to slide right on over street curbs, as well as up ladders, stairs and other obstructions. Notice that the old style coupling (right) in the above picture has caught on the curb, but the DUAL GRIP BEVELED LUG COUPPLING (left) permits the fireman pulling the hose to continue right on to the fire without hindrance.

The lugs on the now obsolete pin lug type coupling soon become worn, developing sharp edges which cut and seriously damage the fire hose as it lays folded in the hose body—just as illustrated here.

This wear and tear on expensive fire hose can be overcome by adopting DUAL GRIP BEVELED SAFETY COUPLINGS—the coupling that slides over concrete walks and other damaging surfaces without developing burrs or knife-like cutting edges.

IMPROVED COMMON WRENCH (No. 108M)

Fits 1½" to 4" couplings of any style lug. Made of tough electrically treated steel. Designed also for use as gas valve shut-off and window pry.

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Chassis. 1935 Ford V-8. Wheelbase, 157". 82 Horse Power.
Body. All steel construction, electrically hand welded into one unit for extra strength and durability. Capacity 1500 feet, 2½" hose.
Booster Tank. Rustless steel, electrically hand welded with recessed filling trough on top for filling with buckets or by hose line from any water supply. Tank, 200 gallon capacity, with surge plates to prevent sloshing.
Booster Tank Connections. Permanent connections from tank to pump booster inlet and from pump booster outlet to swivel joint on reel.
Special Seat. Custom built. Upholstered in good grade waterproofed material.
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Searchlight. Powerful Fire Apparatus Type. Polished chrome finish. Universal swivel bracket.
Tool Box. Steel. Carried on running board.
Bell. Special Fire Engine type, Polished Brass.
Siren. Super Champion High Speed, 6 Volt.
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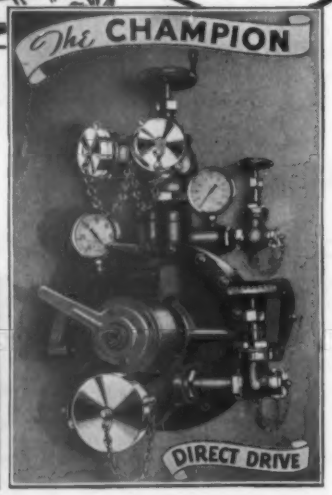
"I'M PROTECTING MY TOWN WITH A CHAMPION ...I'M TAKING NO CHANCES"



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A glance tells you it's completely new and every inch a Champion. From the Suction Inlet in front to the power drive in rear it's brand new with features of engineering design and construction NEVER BEFORE USED IN A FRONT MOUNTED PUMP. The Champion is a distinctly new and distinguished contribution by our ingenious engineering staff to the Fire Dept. field. Instructed to build the very finest pump possible, our engineers conceived and created the Champion—a totally new fire pump.

Its trim, businesslike, compact appearance reflects the caliber and performance and stamina of a Champion. Simplicity of design plus masterful engineering have resulted in a fire pump of unrivalled excellence. The Champion mounts snugly against the front end—the clutch lever and other controls are all out in front. Notice the sweeping curves of the waterways, water slides into the new pump and out with minimum friction.

If you would take apart a New Champion, study and examine the interior construction and calibrate, or use a micrometer, you would say here is workmanship to 1/1000 of an inch, in some parts 1/10000. You would find a solid bronze impeller wonderfully voluted; you would find SEALED IN New Departure Ball Bearings; you would find surfaces finished like glass for smoothness; you would find parts of Chrome Vanadium Nickel Steel, many times the tensile strength of ordinary steel.

There's a new thrill in store for Chiefs who have never fought fire with a Champion. Words cannot tell all a Champion can do; we just wish every Fire Chief could put one through its paces. Here is a Champion he can drive 24 HOURS at HIGH PRESSURE—without the least thought or worry about the pump. It works with perfect smoothness because it has NO GEARS! And because the impeller is WATER BALANCED the higher the PRESSURE the easier the end thrust. Cannot overheat any motor—auxiliary water line from pump to motor block insures cool running for continued pumping.

New Departure Ball Bearings have 3 to 5 years of lubrication sealed in. The Multiple Disc Clutch engages the motor with a 120 h.p. grip—as soft as velvet. ☞ Believe-it-or-not, but should the pump get out of alignment IT DOESN'T MATTER.

A super-performance made possible in Champion alone, by the new FLOATING DIRECT DRIVE TO THE IMPELLER.

It is built for the protection of your community as no other fire pump was ever built! It has no treacherous jaw clutch to worry about. No grinding gears to run dry. Bronze Volute Impeller—Automatic Primer insures instant priming under all operating conditions. ☞ Can be mounted on any chassis, old or new. Easily attached. ☞ Yours anytime for 30 days free try-out.

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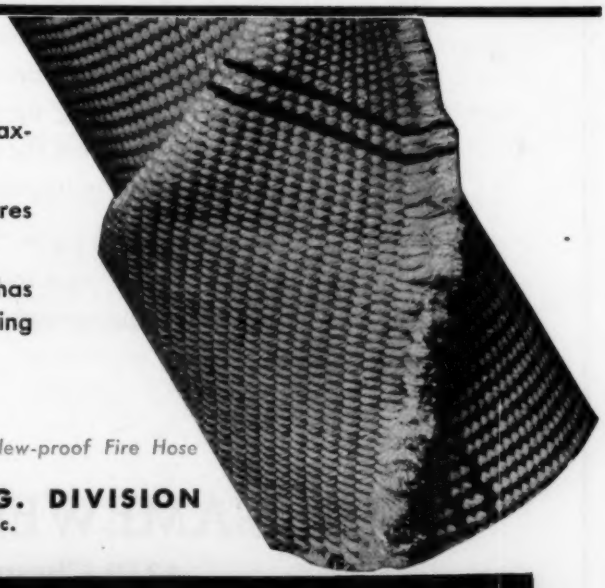

— Manufactured under strict supervision

— every length inspected and tested for maximum pressures.

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— for over 40 years Manhattan Fire Hose has maintained a continuous record of unfailing dependability and long service.

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BEGIN NOW TO BUILD UP YOUR *Fire Alarm Box Distribution*

EVERY city should follow a planned annual program for maintaining adequate fire alarm box distribution by purchasing a definite number of fire alarm boxes each year.

To accomplish this, every fire chief should first make a survey of his existing system by plotting out the locations of his present boxes on a map of his city and also marking those locations where additional boxes are urgently needed. A check up on all obsolete boxes should also be made and then a definite plan laid down to replace a certain number of such boxes each year and add a few new ones so that at the end of a ten year period, the entire system will contain an adequate number of boxes on the streets—all of a modern type.

After you have determined your needs in this manner, you should put a figure in your budget large enough to take care of the purchase and installation of these boxes. Many cities have suffered during the past few years because of reduced appropriations; but, now with business picking up and tax collections improving, you should lay definite plans to start building up your fire alarm box distribution again on a planned basis, so that the efficiency of your fire department will not become too seriously impaired.

We have an interesting booklet "Planning Fire Alarm Box Distribution For Fifty Years," that should be a real aid to you in planning your fire alarm requirements. A copy will be sent to you on request.

THE GAMEWELL COMPANY

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NEWTON, MASSACHUSETTS

FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 88 FEBRUARY, 1935 Number 2

With the Editor

Good News A survey of fire department salary changes, made by the International Association of Fire Fighters, for the year 1934, brings to light a most encouraging trend. In eighty-three cities pay increases have been granted during the year; many of these cities have restored former salaries while some have even established increased scales.

Cities affected are of all sizes. Among the larger ones are Baltimore, Philadelphia, Detroit, Cincinnati, Boston, St. Paul, Seattle, Birmingham and Washington.

Of the larger cities, Seattle leads with an increase of $432 per year; Philadelphia put into effect an increase of $365 per year.

Almost since the start of the depression, the fire service has suffered from successive salary cuts, but hours of labor have remained the same. Work has actually increased, for many cities have closed stations, throwing greater responsibilities upon the men remaining. Furthermore, vacancies were seldom filled.

Thus the Fire Service was hit twice —less pay and heavier burdens.

It is hoped that this early indication of improvement in salaries will not only be sustained, but that the movement will be accelerated. Financial conditions of municipalities are being bettered rapidly, as is indicated conspicuously by the marked improvement in the municipal bond market.

Salary slashes in the underpaid profession of fire fighting were not justified in the first place. The sooner they are restored, the sooner will end an injustice suffered by men who have been too loyal to their respective cities to complain.

Fred Sheppard

New York Fights False Alarms

By WILLIAM JEROME DALY

THE New York Fire Department conducted during the last six months of 1934 an intensive campaign against the false fire alarm evil. The results, while encouraging, are not nearly as satisfactory as hoped for and Fire Commissioner John J. McElligott (he is Fire Chief, too) is disappointed. There was a decrease of 272 false alarms under the corresponding six months of 1933.

It isn't only New York, but in many parts of the United States, there seems to have sprung up in the past few years a yen to pull fire alarm box handles for no other motive apparently than to see the fire fighters race through the streets of town or city.

Why the False Alarm?

Why is it, that the public seem to hold our fire fighters so cheaply, as to call them out of their stations without cause, endanger their lives on the highways, cause the temporary loss of local fire protection to communities and neighborhoods in the false alarm area affected and subject their own local government and themselves as taxpayers to the unnecessary expenditure of public monies involved in the cost of wear and tear on apparatus?

These hoodlums and some others of apparent respectability who snap the handles of fire alarm boxes for fun, wouldn't think of tampering with a U. S. Mail box. They wouldn't give a thought to calling an ambulance unnecessarily, or the police either. Yet, overnight, false fire alarms have become almost a national pastime—in the cosmopolitan cities, at least.

Publicity in the Anti-False Alarm Campaign

In addition to newspaper articles and printed messages to the school children, the public appeal to end the false alarm habit was also carried to the pulpits of all denominations. Each of the city's fifty-five police court judges received at his home a personal letter from Fire Commissioner McElligott. It asked the co-operation of the Court in false fire alarm cases, and where proof of guilt was established to mete out severe penalties for the corrective effect such severity might have. A few of the Magistrate acknowledged the Fire Commissioner's letter and encouraged him. Many of them from their utterances on the bench manifested a genuine desire to be helpful and proved it by imposing 10, 20 and 30 day prison sentences instead of fines. Where $2, $3, $5 and $10 fines were formerly imposed, the penalties now are considerably higher than had been customary. Sentences of three and six months in jail are rare, however.

False alarm complaints that used to be "thrown out" through the intervention of ward leaders, political fixers and hangers-on around police courts are now taken up with profound seriousness and without "influence." In addition to the arresting officer, the Fire Department now has a uniformed representative in court, usually a Chief or Company Officer, who responded to the false alarm. The newspapers have been giving wider notice to arrests and to reports of penalties imposed for false fire alarms than they ever gave before. The newspaper editorial support has been "most gratifying"; the poster campaign in the cars of the subway and elevated lines as well as in the street car lines; the painted sign boards in public squares, the co-operation of the news reel, radio broadcasting, the movietone—in fact many agencies have been utilized to make the public false alarm conscious. The result of six months of such effort has been a reduction of 20 per cent in false alarms, from 52 to 32 per cent monthly.

Guard Installed on "Spade-Type" Boxes

The addition of a guard on spade-handle box doors has had some deterring effect on false alarmers, but not entirely so. There are certain lonesome spots in the city of New York and certain other busy and noisy neighborhoods where the guard has been lifted and the spade-handle pulled down and a false alarm resulted. So far there are no instances reported of anybody lifting the guard and failing to pull down the handle under the impression that they had sent in an alarm. The guards are gradually being installed on all spade-handle boxes that have an unsavory false alarm pedigree.

Defenders of the spade-handle type of alarm box, which is the more prolific type of false alarm activity, say that false alarms of fire have increased proportionately in many cities of the United States. Unemployment, with its accompanying mischief that usually goes with idleness; the tendency to disregard law and order which followed the World War, at a time when the so-called Prohibition Law caused revulsion and contempt for constituted authority, are given as the chief causes for the increased false fire alarms.

The New York Fire Department was so seriously hampered, its apparatus so wantonly damaged and its fire fighters were run so ragged by these false alarms, that Fire Commissioner McElligott called a conference of public officials at his office on June 18 last to formulate some sort of campaign to at least reduce the growing number of false alarms. It is not thought that false alarms could be completely eliminated. The Police Commissioner, the Chief City Magistrate, the District Attorney, the school authorities, civic workers, welfare leaders, merchant groups, taxpayers' representatives and others attended with department officials such as the Deputy Fire Commissioner, the Chief of the Fire Alarm Bureau, the Chief Fire Marshal, the Secretary of the Fire Department, Assistant Chiefs of the Fire Department and so on. They all pledged co-operation. Fire Marshal Brophy carried on much of the work in detail for Commissioner McElligott.

Firemen Killed and Injured in Runs

Firemen have been killed and injured responding to these false alarms. This record applies with equal force to volunteers as well as to paid fire fighters. It appears that unfair and cowardly advantage is being taken of the simplicity and convenience of the facility which municipalities have provided in order to send a call for the firemen with the least possible effort and the least possible information beforehand as to how to sound an alarm of fire.

The city of New York last year had 32,148 alarms of

fire from public street boxes, of which 13,081 were maliciously false. This was 891 more than the total number of false alarms during the year 1933. Public street box alarms only are reported here, since the subject of false alarms goes more to the relationship between the public on the street and the type of alarm box used mostly as the instrument of the false alarm method of public mischief.

New York Type of Alarm Boxes

New York has three general types of alarm box as far as John R. Citizen is concerned. They are in the order of seniority:

1. Turn handle, open door and pull hook.
2. Turn handle only (single action locked door).
3. Pull spade-handle (single action locked door).

Type No. 3 is simplest and quickest to operate. Therefore it is the more attractive and convenient to false alarm fiends The New York Fire Department recognized this, as might be gleaned from the fact that for the past year, the spade-handle boxes in certain neighborhoods where false alarms are numerous, were equipped with a handle guard or "dog." This auxiliary appliance on the spade-handles had the effect of increasing the operation of sending in an alarm from a single movement to a double action. The guard is a hinged lap over the pull-down spade handle. The guard is labeled "LIFT" and the spade-handle is labeled "PULL." In other words you lift the guard, hold it up, snap down the spade handle and in goes the alarm.

There are those who declare that wide-spread publicity given to the false alarm crusade, has the opposite effect; that it causes increase in false alarms because it suggests something not previously thought of. This observation is not agreed with by those who are diligently trying to reduce the number of false alarms.

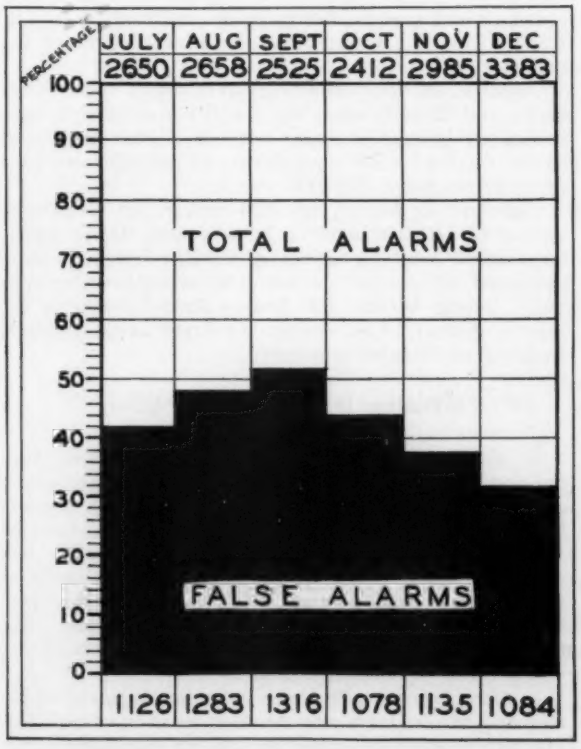
Other skeptics in the Fire Department say the decrease in false alarms during the last six months of 1934 is due to the weather and that there will be another false alarm epidemic in the Spring. They offer no substitute remedy or correction of the evil.

Malicious false alarms in New York from 1924 to 1934 inclusive have increased from 19 to 47 per cent annually. The record looks like this: 1924 and 1925—19 per cent; 1926—10; 1927—14; 1928—15; 1929 and 1930—20; 1931—24; 1932—26; 1933—31; and 1934—47 per cent.

During the first six months of 1934 there were 16,163 street boxes pulled of which 6,225 or 38 per cent were maliciously false. The last six months of 1934 during the false alarm campaign is reflected in the accompanying sketch by months. The figures are based on public street boxes only. They do not include verbals, special calls, automatics, etc.

On New Year's Eve for a two hour period from 11:30 p.m. to 1:30 New Year's morning, the Engine and Truck Company first due only responded to street box alarms. Other alarms, including verbals by telephone, were answered with full assignments. In this two hour period there were 125 street boxes pulled, of which 109 were maliciously false. The order curtailing full responses for the two hour period saved a total of 432 apparatus runs.

For the first time in New York City, policemen were assigned to guard fire alarm boxes in the Times Square and other Broadway areas on New Year's eve. In conjunction with this the Police Department was requested by the Fire Commissioner to announce over the police radio system the receipt and location of all alarms of fire. So effective were the responses and the action taken by Police Radio Motor Patrols that the Police Department was requested to continue the practice until further orders. Now, New York, like most of the smaller communities of the country, is broadcasting alarms of fire on the police network and the results thus far obtained have more than justified the new policy.



Graphic Diagram, Showing Reduction in False Alarms by Months During the Intensive Campaign Conducted Against the Practice in New York City.

Chiefs Hear Report on False Alarms

There was such a large attendance at the combined meeting of the Fire Chiefs' Club of Massachusetts and the Massachusetts Police Chiefs' Association on January 16 in the Hotel Beaconsfield, Brookline, that the dining room was packed for the luncheon and extra tables had to be placed in the hallway.

"False Alarms and Their Prevention" was the subject for the joint discussion. Percy C. Charnock, of the New England Insurance Exchange, reported as Chairman of the Committee on False Alarms of the Fire Chiefs' Club. He gave statistics showing that there were 4,848 false alarms in 104 Massachusetts municipalities last year and in Boston alone there were 1,816 false alarms of fire with only 36 arrests and five convictions.

Mr. Charnock showed charts of the number of alarms and number of false alarms over a period of years and pointed out the marked increase in false calls recently.

Among those who discussed the false alarm subject were Police Chief Rutherford, Brookline; Lieutenant Lawrence L. Waitt, Boston Police Department; Superintendent George L. Fickett, Boston Fire Alarm Division; Stephen C. Garrity, State Fire Marshal; Police Chief Foley, Worcester; Police Chief Flynn, New Bedford; and Frank M. Tiffany, Gamewell Company. Other speakers were Chief Selden R. Allen, Brookline, and Fire Commissioner Goode, Brookline.

HARRY BELKNAP.

Fighting Fires in the Near East

By BERNHARD PEILL

FIRES in Oriental cities easily develop into conflagrations because of the wooden buildings, narrow streets, the carelessness of inhabitants, and the slow and inefficient fire prevention work performed by the police and city administration.

As an example, in June of this year there was a general-alarm fire all because of a black snake which a woman discovered in her dwelling, located in the old Turkish district of Istanbul, not far from the Bosphorus. She was afraid of the reptile. She saturated the snake with gasoline and then set fire to the fluid. The snake did not tarry but crawled into a hole within the wooden wall of the room. At once the wall and the wooden furniture were set on fire.

The buildings on this street were still of the old Turkish design. They were two to four stories high, of wood construction, many balconies, wooden chimneys and fire walls, narrow stairs and grilled windows. In spite of these handicaps, the woman succeeded in reaching the street and telephoning an alarm. Istanbul does not have a fire alarm box system.

No Company Organization, as in America

The company organization of American Fire Departments does not exist there. Instead there are six large and six small stations, one of which is in the navy section for the port. The apparatus from this station did not reach the scene until eight to ten minutes after the alarm had been reported.

The first alarm assignment consisted of twenty-five officers and men with four pumpers, two of which had water tanks, 1 trailer pump, 1 Magirus 100-foot steel aerial ladder and 1 rescue wagon. By the time the men and apparatus arrived, the fire had already spread from the first three-story wooden house to the nearby frame buildings. Two of the houses which became involved consisted of twenty-five rooms each. They served as apartment houses since the passing of Pashas and harems in modern Turkey. Near the scene of the fire the department found a hydrant which was capable of giving a supply for only one pumper. There was not another hydrant in the vicinity.

A second alarm was sent. This brought a pumper, one hose car and a trailer-pump. Before these arrived the first pumper tried to fight the blaze with the hydrant supply and the water in the two 350-gallon booster tanks.

Group of Firemen from Istanbul, Turkey

Sea Breeze Spreads Fire

A slight breeze from the sea spread the fire from one wooden house to another. A third and then a fourth alarm became necessary. The entire force of the Central Fire Station was called, consisting of the Chief, Assistant Chief, Fire Marshal, Mayor, and about sixty-five officers and firemen with seven pumpers, two of which had booster tanks and one with a 60-foot aerial 2-wheeled ladder, three trailer pumps, two rescue wagons, two small pumpers and two Chief's cars. An American fireboat of the navy division also responded and tied up near the tobacco pier of Beshiktash where the boat and one large pumper started pumping to the fire one mile away. The water was pumped into the engines with booster tanks, from which other pumpers obtained their supply for relaying the water. The smaller pumps, trailer-pumps and portable units took their supply from nearby garden wells and cisterns. About fifteen pumpers and smaller engines were used to supply ten to twelve large streams. Often the water supply stopped and the fire gained new headway.

Policemen, soldiers and workers cleared the nearby streets and houses. Furniture was placed in a nearby cemetery and later hauled away by trucks. Boys of the section formed a bucket brigade for wetting down the neighboring roofs.

Firemen, in the meantime, dynamited some brick walls, and three hours after the fire had started, succeeded in getting it under control. Seven large and twelve smaller houses were destroyed and property (not insured) valued at $80,000 was lost.

Three weeks before, fire had broken out in another section of Istanbul. Here a large 4-story frame apartment house and ten adjoining wooden buildings were destroyed before the fire could be brought under control. A year before, 100 houses burned down in the Asiatic district. Last winter the huge brick Tribunal Building of Istanbul was razed.

Difficulties in Oriental Fire Fighting

In smaller Oriental cities and province towns, fire-fighting is still more difficult. In Turkey, Greece and other near-eastern countries, only the important districts have organized fire departments. Cities and towns of 10,000-30,000 population may have only one or two water-sprinkling motor cars which must also serve as fire pumpers. In the better protected towns there may be one or two small trailer-pumps and some hose. The larger villages may have one or two portable hand fire engines with or without a hand cart.

In municipalities with water sprinkling cars, the workmen and drivers must man the equipment in case of fire. If there is a trailer-pump, the master mechanic of the community must operate it, assisted by some town workers who do not have helmets nor fire-fighting equipment.

Hand engines are used by the entire population and

Modern Apparatus of Istanbul

The apparatus is assembled in the court of Fatih-Mosque. Turkey

are in charge of policemen, gendarmes and civil sheriffs. There are seldom any hydrants or direct water supplies. The people organize bucket brigades when a fire occurs. Even the cities and towns that have a sprinkler truck or a trailer-pump have but little hose. In case of fire, hooks, axes, ropes and dynamite must serve as the most important fire-fighting tools. Very often the feeble fire methods are not effective, and the blaze spreads to conflagration proportions. In such cases, there is great disorder. Volunteer firemen have been known to use buckets or hose filled with gasoline, and severe panic conditions prevail.

Most of the Oriental cities have police telephone systems, bell towers and lookout stations. In the smaller towns, villages and rural districts, the alarms are turned in by shooting firearms into the air.

The best fire brigades of the Near East are known to be located in Sofia and Philipopel, Bulgaria; Istanbul and Smyrna, Turkey; Cairo and Alexandria, Egypt; Caucasus, Tiflis and Baku, U. S. R. R. In Greece, Roumania, Irak, Syria, Palestine, Arabia, and Persia the fire brigades are not of sufficient value, even in the larger cities. In Turkey and Bulgaria, most of the fire apparatus is of German manufacture; in Greece, of English and Austrian make. In the other Oriental countries, the apparatus may be of American, French or Italian design. Fire hose even comes from Japan.

Small Heads Underwriters' Laboratories

A. R. Small, Vice-President of the Underwriters' Laboratories, has been elected President to fill the vacancy caused by the death of the late Dana Pierce.

Mr. Small was born at South Portland, Me., December 7, 1882, and in 1904 graduated from the University of Maine with the degree Bachelor of Science in Civil Engineering. In 1929 the university awarded him the degree of Civil Engineer.

Following graduation he was employed by the New York Fire Insurance Exchange, New York City, and served as inspector in the general schedule department for two years. In October, 1906, he joined the Underwriters' Laboratories, Chicago, as Assistant Engineer in the newly created Electrical Department which was under the management of Dana Pierce. Two years later he was made Special Agent and in 1910 was appointed Superintendent of the Label Service Department which he had organized. He continued in charge of the label service after election as Vice-President in 1916, until he was transferred to New York on January 1, 1924, as Resident Vice-President.

He is chairman of the Electrical Committee of the National Fire Protection Association. Mr. Small has served the Advisory Engineering Council of the National Board of Fire Underwriters, the American Marine Engineering Standards Committee, the American Society for Testing Materials, Building Officials Conference, Industrial Commission of the New York Department of Labor, New York Fire Department, and other organizations.

VALUE OF RADIO FEATURED AT FIRE FIGHTING CONFERENCE

Radio Considered as Greatest Recent Development in Fire-Fighting — Chiefs Discuss Use of Water Holes at Fires

By Harry Belknap

THERE was such a large attendance at the Fire Fighting Conference held on January 11 in connection with the Union Agricultural Meeting in the Memorial Auditorium, Worcester, Mass., that the afternoon session had to be held in a larger meeting hall to accommodate those who had crowded every foot of the smaller hall used for the morning session.

Howard Russell, Secretary, Massachusetts Federation of County Farm Bureaus, presided, assisted by Stephen C. Garrity, State Fire Marshal; Colonel Paul G. Kirk, Commissioner of Public Safety, and George O. Mansfield, Chief Fire Inspector of the State Fire Marshal's Office.

The speakers at the morning session were Chief Charles L. McCarthy, of the Worcester Fire Department, who extended the welcome of the municipality; Chief Selden R. Allen, of Brookline, who spoke on "Radio in the Brookline Fire Department"; and Lieutenant Martin Joyce, of the Massachusetts State Police, who told "How Radio Fits Into Police Work."

Chief Allen declared that the introduction of radio as an auxiliary to the fire alarm telegraph is " the greatest forward step in the fire service since the installation of motor apparatus." He stated that he believed in the future every up-to-date city and town will have both sending and receiving radio equipment on every piece of fire apparatus.

Lieutenant Joyce gave the history of the introduction of radio transmission for police work which he said was first put to practical usage in Detroit, Mich., in 1924. He exhibited several types of low wave receiving and sending sets.

Edgar L. Gillette, Commissioner of Agriculture, was introduced and spoke briefly. Inspector Mansfield told of the emergency radio truck of the state which can be sent anywhere to temporarily replace telephone or fire alarm communication systems which might be destroyed in case of a conflagration.

Water Holes Considered at Afternoon Session

At the afternoon meeting the speakers were: Chief Edward A. Logan, Shrewsbury, on "Waterholes Save Farm Buildings"; Chief Irving C. Hammond, Westport, on "Waterholes Save Summer Homes"; Chief William C. Blois, Westboro, on "A Waterhole Saves the Lyman School Farm"; John P. Crowe, Assistant State Fire Warden on "Build the Waterholes Big Enough"; and Supt. Lorton C. Walden, of the Worcester Protective Department, who told "How To Protect the Peoples' Goods" and gave a demonstration of the use of salvage covers to prevent water damage at fires.

Chief Blois gave a graphic account of how a swimming pool was pumped dry to furnish water at the burning of the Lyman School Barn. Asst. Warden Crowe advised making all water holes of at least 30,000 gallons capacity and said the larger the better. He saw no objection to the waterholes being used as community swimming pools if desired and said they might now be more properly referred to as basins than waterholes.

Others who spoke briefly were Chief Albert C. Melendy, Nashua, N. H.; Chief William C. Mahoney, Peabody, Mass.; Deputy Chief Albert Jenkins, Shrewsbury; and Alfred L. Miner, Chairman of the State Fire Prevention Committee, Massachusetts Safety Council. The subjects of contributory pensions and compensation for widows and orphans of firemen were discussed.

A motion was passed instructing the Executive Committee of the conference to seek to obtain credit from the insurance companies for the protection afforded to farms and suburban properties by waterholes and small capacity pumpers.

Equipping Small Departments

By CHIEF E. A. JOHNSON,
Fire Department,
Boulder, Col.

THE first thing to do, relative to equipping a fire department in a small town, would be to try and determine what might be needed most of the time, not overlooking what might be needed in the future, in the event of sudden or rapid growth of the town. For instance, how near the town might be to some other town or city, of much greater population, what the possibilities might be of the town becoming an industrial, agricultural or mining center; then, last but not least, the financial condition of the town would have to be taken into consideration.

Large fires are just as apt to develop in small communities as in larger cities. In fact, the records will probably show that the majority of the serious fires during the past decade have visited towns and cities of the smaller size. No city is so small that it has not enough buildings to furnish fuel for a large fire. On the other hand, the average small community is not in a financial position to maintain the reserve of men, apparatus and equipment to handle a large fire. A threatening blaze in a large city will bring into play ten trucks and a hundred men, while some of our small towns are equipped with one or two pieces of apparatus and ten to fifteen men. The consequence is that such fires, which are easily controlled in the larger cities, get out of control in the smaller ones. The further result is (and the statistics will bear us out in this) that the per capita fire loss in the smaller communities of the country is greater than in the larger cities.

Steps should be taken to select a site centrally located for the Fire Station. This station should be adequate in size so that all equipment would be properly housed and taken care of. It should be built of fire-proof materials and be properly heated and lighted. A hose rack or tower should be built for the proper care of the hose, prolonging its life and effecting considerable saving.

Location of Hydrants

We are assuming that the town to be equipped with fire apparatus has an adequate supply of water and water mains, therefore we must take into consideration fire hydrants, which are, as the name indicates, provided for the use of the Fire Department in extinguishing fires. In order that they may always be in the best operative condition, they should be used for no other purpose, and an inspection of fire hydrants should be made in the spring and fall of each year. Hydrants should also be inspected after use at fires in freezing weather. Mercantile districts should have at least one hydrant at each street intersection, not only on the main street, but on the parallel streets also. No important building or group of buildings should be more than five hundred feet from at least two hydrants, for the better the distribution of hydrants, the less hose will have to be laid, the less pressure consumed in friction, the more thrown on the fire.

It must be remembered that all fire-fighting appliances have their limitations, as well as their uses, and that no two fires ever present exactly the same conditions or require the same methods of handling. No Fire Department can hope to be entirely successful, or make use of good fire methods, unless it is well equipped; times without number it has been reported that such and such a department employed effectively what equipment it possessed, but that it lacked much necessary equipment. On the other hand, a department which is modernly equipped does not always use its appliances to good advantage, because of insufficient training.

False Economy Is Poor Policy

Care should be taken in buying equipment, and the difference between a small and a large department is the amount of equipment. Automobile apparatus deserves careful consideration, and generally the chief concern is the price, and quite often the cheapest is purchased. Of course, the practice of economy is important, but when figuring price do not overlook service, maintenance and suitability. For instance, load a one-ton truck with a thousand feet of hose, a thirty-five gallon chemical tank, ladders and minor equipment, in addition to six or seven firemen, and ask it to plough through muddy streets up and down hill. It won't do it successfully, and it would be unreasonable to expect it to. It may get there after a fashion, but an overloaded motor is poor economy, and means early breakdown, which might occur at a critical time, and would not effect a saving in the long run.

Purchase good equipment of sufficient power and capacity to endure, as one serious fire will cost more than a piece of good apparatus, and it is unreasonable of the public to expect fire fighters to give their time and service to the public without recognizing the obligation on part of the town to provide the necessary equipment. No man likes to work with poor tools, as he realizes his workmanship cannot be of the best.

Type of Apparatus and Ladder Equipment

In the smaller towns only one or two pieces of apparatus are purchased, therefore it should be a combination hose and ladder truck, which can be used for all practical purposes. In towns not having sufficient water pressure to furnish the volume of water required, the apparatus should be equipped with pumping engines.

Ladder equipment is of special importance and these requirements can be served by a thirty-five and twenty-four foot extension ladders, in addition to roof and attic ladders, which should be carried on the combination trucks just mentioned. However, where there are numbers of buildings higher than two stories, it is necessary to provide longer ladders than are carried on combination trucks, and a ladder truck should be provided. In any event a ladder to reach the roof of the highest building in the town should be quickly available.

A city of any size should have at least one piece of reserve apparatus, properly equipped, that could be used at a second fire, or to aid at a large one; in addition to this it could be used in place of a piece of apparatus out of commission for repairs. Never dispose of a piece of old apparatus as long as it is usable, because the amount received for it will be but a fraction of its cost, and invariably the time will come when it will be needed.

Good Quality of Hose Important

Each apparatus should carry at least a thousand feet

of 2½-inch hose and two hundred feet of 1½-inch, and it should be a standard double-jacketed rubber-lined fire hose made by a reputable manufacturer of the best materials, for there is only one kind of hose to buy, and that is the best, for it is the cheapest in the long run, per year service. Good quality hose, with proper care, should last about seven years, and should be tested at least once each year, and all poor sections discarded. Purchase enough each year that it will effect a complete replacement every seven years.

The advantage of 1½-inch hose over 2½-inch for fighting the average fire, to me, is an important matter, although some may differ and have some doubts about its advantages, and protest about the difference of friction between 2½ and 1½-inch hose; but the advantage is still with 1½-inch hose under most conditions. The fire service of the country is at this time responding to alarms of fire so quickly with motor apparatus that seventy-five per cent of all fires that are not held with chemical lines, or hand fire extinguishers, can be extinguished with 1½-inch hose lines, thus saving much property from water damage. It is not the intent to recommend the use of 1½-inch hose for fires that require 3-inch pumping lines reduced to 2½-inch size in order to handle, but to try and present some of the advantages of 1½-inch hose. Many companies in small towns respond to fires with four men or less, and a chemical line working on the inside. With one man handling the stream, the balance of the crew can handle the 1½-inch water line with ease, as compared with handling a 2½-inch line.

For the extinguishing of small fires the appliances usually depended upon are hand extinguishers, hand pumps, hose lines from large chemical tanks, small water lines from booster tanks, small hose on large hose and small tips on shut-off nozzles of large hose. With any of these appliances the amount of liquid is easily controlled, and in the hands of a trained operator the stream is placed where it will be the most effective.

Value of Salvage Work

Salvage covers are of special value in reducing the water damage in fires, and new small departments carry a full line of salvage appliances. Salvage work in a small department is just as important as that of a large one. Today salvage work demands more than spreading covers over stock. Therefore, firemen should be trained and equipped with that end in view. They should make a study of the various conditions which cause preventable losses at fires and guard against them when the opportunity presents itself. Firemen should learn ways of performing their duties in a workmanlike manner so as to keep the damage down.

The reckless smashing of doors and windows, the destruction of furnishings and stocks of goods in tracing fire, the unnecessary or unworkmanlike opening of roofs and skylights, should be discouraged. Efficient tools have been designed to open doors and windows, and men should be trained in their use. Before pulling ceilings or side walls, it is good practice to remove or cover stocks and furnishings. When firemen find it necessary to open a roof, one large, square, clean-cut hole should be made in the proper place instead of several small openings. This procedure results in a small repair cost and makes temporary covering a simple matter. These are methods by which Fire Departments are effecting a material reduction in fire loss. The smaller Fire Departments should make a serious study of salvage work, as salvage work well done will reduce their annual fire loss. Officers of some of the smaller departments have the idea that they do not have the necessary man power to do salvage work. If salvage work is thoroughly understood and the department is properly organized, it can be carried on with much success even in the smaller departments.

The equipment carried on fire apparatus has become more or less standardized, and is usually found to be uniform throughout the various departments. Equipment will sometimes be found to vary considerably where it is necessary for it to conform to local conditions. Every Fire Department should have a uniform arrangement for carrying equipment, so that any man can go to any apparatus and secure, without delay, a desired piece of equipment, knowing exactly where it is to be found.

Every small Fire Department should be equipped with the following minor equipment: Hand fire extinguishers, shut-off nozzles, pike poles, ceiling hooks, axes, crowbars, cellar pipe, hose clamp, burst hose jacket, smoke masks, salvage covers, door openei, lanterns, hydrant wrenches, hose straps, spanners, double male and female connections (two and one-inch), rope, belts and siamese connection. These appliances, in addition to various others, are of extreme importance, and should be included in every department.

(Excerpts from a paper read before the Annual Fire College of the Colorado State Firemen's Association.)

Providence, R. I., Has New Salvage Wagon

The fire department of Providence, R. I., has placed a new salvage truck in service to reduce water damage at fires.

The wagon body was built in the Providence Fire Department repair shops on a Ford, model V-8, one and a half ton truck chassis. It is 20 feet, 6 inches in overall length and the body is 10 feet, 11 inches long. The height is 4 feet, 1⅞ inches and the width is 5 feet, 8 inches.

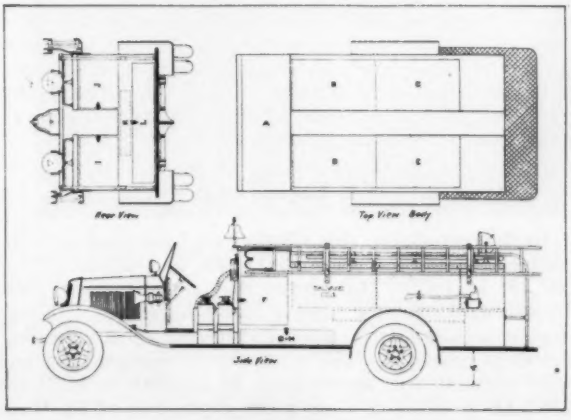


Diagram of the Salvage Wagon of the Providence Fire Department

There are six large compartments and four small compartments. The wagon carries 25 salvage covers, brooms, squegees, shovels, portable flood lights run by a gasoline driven generating plant, life lines and first aid equipment.

HARRY BELKNAP.

Clune Named Chief of Gary, Ind.

Thomas P. Clune, Assistant Chief, Gary, Ind., Fire Department was advanced to the rank of Chief on January 1, 1935.

He was twenty-one years old when he joined the department. He was promoted to Lieutenant, May, 1916; Captain, August, 1918; Assistant Chief, April, 1925.

He is popular as an entertainer, for he sings and dances, and also plays the piano. He lives with his wife and five children on the west side of Gary.

Fighting Fire by Inspections

By EX-CHIEF HARRY E. VOSHELL,
Fire Department,
Indianapolis, Ind.

Ex-Chief Harry E. Voshell

FIGHTING fire in advance through systematic inspection has a very significant value in modern and scientific fire fighting.

There are two distinct purposes in making thorough inspections of buildings. First, to apprehend if any fire hazards exist. Second, to get acquainted with buildings and get the knowledge which is essential to have to successfully fight a fire, should one occur. If any fire hazards are found, they should be ordered removed, thereby preventing the possibility of a future fire, or, in other words, fighting a fire in advance by fire prevention. Fire Prevention is being recognized today as one of the great factors in helping reduce our fire losses.

For years we have tried to keep our losses down by extinguishing, but have failed. Instead of being lower, they were getting higher each year until we reached the peak year in 1929, with a fire loss in the United States of approximately five hundred twenty-five millions. So it has been generally accepted that it was necessary to use fire prevention methods in conjunction with extinguishing if we were to obtain better results.

Reduction of Fire Losses Through Prevention

In this manner of fire fighting we have been able to reduce our losses from $525,000,000 in 1929 to $316,897,733 in 1933. This shows that a great many Fire Departments over the United States have been fighting fires in advance by systematic inspecting and having the cause removed. For example, in Indianapolis we have reduced our losses from $1,326,000 in 1929 to $382,000 in 1933, or from a per capita loss of $3.70 in 1929 to $1.03 in 1933. I attribute this decrease to the modern methods used and efficient work done by the several divisions of the department cooperating and working as one unit to obtain the desired results: "Reducing our Fire Losses." We would be surprised to know how many would-be fires are stopped before they start by modern and efficient fire prevention methods. I am satisfied we have 25 per cent less fires with losses in Indianapolis by stressing the importance of modern fire-fighting methods.

Advantages of Systematic Inspections

In 1933 we made 63,930 inspections; 9,421 orders were issued to correct fire hazards; 5,496 reinspections were made, 9,066 orders complied with. You may not have fire prevention ordinances or laws that give you authority to act. Of all the orders given to correct fire hazards, we did not have to resort to the courts to get results. I believe by using a little diplomacy, being courteous and gaining the confidence of the people, they will cooperate with us in this great fight to prevent fires.

We make continuous inspections in our high valued districts by our fire prevention men, also by the company men. We have had only one second alarm fire in our high valued district within five years. I think this is proof that we can fight fires in advance by systematic inspecting.

Two Clean-Up Campaigns During Year

It might be of interest to know that we have two clean-up campaigns each year. Usually during the month of April we have what we call our Spring Clean-up in our residential districts, whereby we ask the people to collect all debris that has accumulated during the winter and place it in containers and the Sanitary Board removes this from the premises. I detail thirty men to inspect the residential districts for one week during this campaign. Besides inspecting for fire hazards, these men also instruct the people in how to prevent fires.

The Fall Campaign is held in October during the National Fire Prevention Week and is carried on very similar to our Spring Clean-up Campaign. I consider these Clean-up Campaigns of great value in helping to prevent fires.

Each Company Given District to Inspect

I believe that systematic inspection can best be accomplished by installing company inspection districts, thereby giving each company a certain district to inspect. In so doing every building would be inspected by the company men in their respective districts. Through this system of inspecting, the company men become acquainted with the buildings in their districts, in this manner gaining knowledge of the construction and contents of the buildings which is very important to know in combating fires.

The inspector should observe the type of building he is inspecting, whether it is a first, second or third class building, with the thought in mind of a possibility of a fire occurring in it. He should familiarize himself with a building, to know whether it is fireproof, semi-fireproof, of slow or fast burning construction; location of all elevator shafts; whether they are enclosed, fireproof or not; of what material all stairways are constructed; if they are open or closed, protected with fire doors; to know where all fire doors, if any, are located and if they are in working condition; to know where all utility shut-offs are located.

Sprinkler Knowledge Important

If a building is sprinklered the inspector should know whether it is equipped with a siamese connection, with standpipes and the condition of same; if they can be

used by the Fire Department on which to connect lines; the condition of fire hose, if any, that is carried in the building. It is very important to know where the sprinkler shut-off is located, for very often a heavy water damage can be avoided by having this information. It is also important to know the location of electric switchboard so that all electricity can be cut out of building to avoid charging same, thereby possibly saving some person, or persons, from being electrocuted. There are many other things that should be observed, such as doors, windows, stairways, aisles and fire escapes to see they are not obstructed with anything that would retard the Fire Department in stretching lines into building.

Should Know Contents of Buildings

It is also very essential to know the contents of buildings. One should know if the building contains chemicals, volatile liquids, acids or explosives, their location and what to use in extinguishing to prevent deadly gases from forming and endangering the lives of the firemen.

It is also important to know if building contains anything that would absorb a sufficient amount of water whereby the weight would cause the building to collapse.

By the company men making thorough and systematic inspections they have prepared themselves in advance to fight a fire, should one occur, by being thoroughly familiar with building, which is a great factor in successful fire fighting. It also enables them to convey to a commanding officer any information he wishes to know about building that will help him to fight the fire more efficiently.

I believe that a good per cent of our fire losses can be eliminated through systematic inspection by company men having fire hazards removed and thoroughly familiarizing themselves with buildings which enables them to take advantage of the situation through the knowledge they have obtained, making it possible to combat a fire more intelligently.

Should Stress Responsibility of Individual

I believe we could further our cause by stressing on the individual his responsibility that he owes himself, his neighbor and his community in helping to prevent fires by being more careful, thereby reducing to a minimum the awful toll of life and property that is being consumed each year by the ravages of the mighty fire demon.

I am a firm believer in preparedness, especially in the Fire Department. I believe in modern and efficient fire prevention methods, all equipment being kept up to the highest point of efficiency and manned by well disciplined and trained men who know how and when to use it. Being thus prepared, with every man in our vast army of firemen, paid or volunteer, applying himself to his important task, we will be able to meet this great challenge—How to Reduce the Fire Losses.

(From a paper read before the annual meeting of the Indiana Section, American Water Works Association.)

Smoke Hinders Work of Firemen

Damage estimated at $50,000 resulted from a five-alarm fire which broke out in the basement and first floor of a jewelry store at Washington, D. C. Fire started in the rear of the basement, which is used as a shipping room.

The first alarm was sounded at 12:10 a.m., and calls were sent in for more apparatus. The fifth alarm called into service all available equipment.

Firemen were so hindered by smoke in their work that it was necessary to break a show window and to open the basement trapdoors in the sidewalks. At the height of the fire, smoke was so dense that a call was sent to the Hyattsville, Md., Fire Department for the use of their Pirsch smoke ejector. It is the machine that was used to save the lives of sixteen men in Chicago trapped in a tunnel. Hyattsville purchased the smoke ejector one year ago and at that time it was considered the only machine of its kind east of Chicago.

Pittsburgh Has Six-Alarm Fire

A muffled explosion, a shower of window glass, and a puff of smoke from the fourth floor of an eight-story building, were preliminary introductions to a mystery fire at Pittsburgh, Pa., for which six alarms were sounded. The building was nearly fifty years old.

Fire Marshal T. L. Pfarr said he was confident the fire was of incendiary origin. He said, "There was a strong odor of kerosene about the place. I am convinced the fire was set off in the elevator shaft and stairway by some one who had soaked the upper floors with kerosene."

Burning Building Before All First Alarm Companies Arrived

Six alarms were sent in in rapid succession and twenty-four companies responded. Within an hour firemen had isolated the fire to the top floor. Two hours passed before firemen were able to enter the building.

Fire Prevention Work of Lafayette, La.

For two consecutive years, Lafayette, La., has won first place in state fire prevention contests. The department consists of paid and volunteer firemen under the leadership of Chief Leo J. Gros.

In the early part of 1934, a year-round fire prevention program was started consisting of quarterly inspections and the introduction of salvage work.

For 1935 a fire prevention program has been planned for the local schools. This calls for the appointment of one junior fire marshal for each school, and through this means a complete monthly report of fire drills and inspections are available. It is endorsed by local school officials. Fire drills are regularly conducted under the supervision of the Fire Department assisted by the Junior Fire Marshals.

Fire prevention and the work of the fire department are regularly discussed by the students through information given out by the department. Monthly reports are filled out by each school upon inspection of the school property by the Junior Fire Marshal of that school.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

SAFEGUARDING SHOPPERS AT CHRISTMAS SEASON

CONCENTRATED shopping during the season shortly after Thanksgiving Day until Christmas has brought with it many problems that are of major importance to the Fire Department and to the Fire Prevention Bureau. In preparation for this period, merchants receive large stocks, carefully boxed or wrapped in excelsior.

These wastes must be removed before they have had a chance to accumulate. Decorations must be placed so that they will not constitute a fire hazard. All exits must have illuminated signs informing the shoppers and employees of the special means of egress. Aisles have to be wide and free from the physical obstructions that would hinder rapid clearing of the building.

Many chiefs report that through systematic yearly campaigns they have succeeded in eliminating fires in stores at Christmas time and also fires in homes due to candles on trees. The manner in which this was accomplished may prove valuable to department officers next October, and it is suggested that the data be filed.

In the box on this page is the problem in full that is treated in this issue. Due to the large number who have contributed to this round table, the discussion on this subject will be concluded in the following issue. Should there be some comments you would like to add, you are invited to write to the "Round Table Editor," FIRE ENGINEERING, 24 West 40th Street, New York, N. Y.

Discussion of the Question

H. J. Callahan, Chief, Fort Dodge, Ia.: The preparation for Christmas begins early in November. Letters are written to the Chamber of Commerce and to retail, wholesale and jobbers organizations, calling their attention to the hazards encountered during the holiday season and suggesting they take extra precautions with reference to disposal of rubbish and flammable packing material during this period. This is done because much Christmas stuff is received and unpacked during November and kept in stock rooms until the following month.

In writing to business organizations it is suggested that all merchants check up on their insurance to make certain that they have sufficient coverage for the added stocks during this period.

Retail establishments are inspected daily beginning about December 1. Trash, rubbish and other light material are removed daily and at such a time of day as will prevent large accumulations remaining over night or over Sunday. All department stores and other retail establishments are required to have fire exit signs indicating other than the regular entrances. By a process of education and propaganda covering a number of years, I doubt if there is a single Christmas candle used in this city. Practically all homes are wired for electricity and the low cost of decorative electric lights makes the use of these more practical. For a number of years we have not had a business section fire during the holiday season and have not had a fire caused by Christmas trees of any kind.

Robert Jones, Chief, Chattanooga, Tenn.: A close and rigid inspection of the same type as held during Fire Prevention Week is conducted, and inspections are doubled. Every effort is made to safeguard lives and properties during the Holiday season.

Orders are given to make immediate disposal of all accumulation of rubbish and boxes and a card report of the existing condition is turned into the inspector's office. The card report that has been turned in to the office is then followed up by another inspector of another shift and if the condition is found corrected, the card report is marked "completed" and filed.

Through the columns of the local newspaper a warning is issued calling attention to the dangers attached by the use of Christmas tree candle lights. The use of electric lights of proper voltage for lighting effects for Christmas trees rather than candle lights are advised and recommended and when used they are urged to take every precaution to see that all connections are properly made, and that no defective wiring is placed on the tree.

H. E. Voshell, Chief, Indianapolis, Ind.: I have detailed a man in each of the principal stores during business hours throughout the Christmas Holidays.

During the season of Christmas we make daily inspections in our down town district for the purpose of detecting any fire hazards, such as rubbish, etc.

I had published in the papers some notes pertaining to the hazards of Christmas tree lighting, and have advised that all Christmas trees be lighted with electric lights, and non-inflammable decorations as far as possible.

Stanley Shaw, Chief, Newark, Ohio: We made a very rigid inspection of fire-escapes and exit doors, particularly on public buildings, prior to and during the Christmas holidays. We have had at least six uniformed firemen at all public gatherings where there have been many children congregated. We have made many talks to the children regarding fire escapes and exits. We have used fire escapes and exits to disperse the crowds during demonstrations in order to educate people of the community regarding their use.

We started inspection December 17, and have done so every day up to December 25. The off-shift volunteered their services for this inspection.

We have used short sketches in the daily paper explaining what can happen by having lighted candles on Christmas trees or in windows, where curtains may blow into the flame. The last plea was placed in the afternoon edition of December 24.

John A. Fisher, Chief, Duluth, Minn.: Usually more inspectors are added for

HERE IS THE PROBLEM

What particular inspections or regulations have you followed to safeguard lives and properties at Christmas time?

In what way have you prevented the accumulation of rubbish and boxes in stores during the holiday shopping rush?

What have you done to check possible fires by Christmas tree candle lights?

the Christmas period and they are all detailed to the down town district, which in general covers the shopping district. A rigid inspection of all hotels and department stores are made. Also, our Fire Prevention code provides the following:

"Sec. 6. Cotton batting, straw, dry vines, leaves, trees, celluloid or other highly flammable materials shall not be used for decoration purposes in show windows or store without a permit, provided, however, that nothing in this section shall be held to prohibit the display of saleable goods permitted and offered for sale in the store. Electric light bulbs in stores or public halls shall not be decorated with paper or other combustible materials unless such materials shall first have been rendered flameproof.

"Sec. 6 (a) amendment—The lighting or illuminating of trees or other decorations, furnishings or trimmings of flammable materials by candles or open flame, in any building, hall, church, school or other building, or structure where there is a public gathering is unlawful and is prohibited under this ordinance."

We avoid accumulation of rubbish, boxes, etc., by daily and semi-daily inspections of the down town district.

Arthur E. Chambers, Chief, Yonkers, N. Y.: At the Christmas season we warn the citizens through the press, as a medium of education, of the need of caution and carefulness in the use of toys and novelties during the holiday period. We also point out the necessity of being careful with Christmas tree lights and to prevent fatalities which tend to mar and defeat the intent of the holiday.

We make a systematic inspection of large department stores filled to capacity with women and children shoppers, who are unmindful of the dangers prevalent, should the enormous stock of highly inflammable and fast burning material become ignited.

We request store owners to tie up and carefully pile, waste paper, paste board boxes, etc., in an orderly and safe manner pending the allotted days set by the Department of Public Works for the collection of such waste material.

We point out the dangers incurred by the use of wax tapers or candles on Christmas trees, novelties or near places where curtains may become ignited by them. We recommend the use only of electric tree sets or fixtures and appliances bearing the Underwriters label.

Daniel H. Shire, Chief, Mason City, Iowa: As soon as the stores start to stay open nights for Christmas shopping the whole of the off-shift returns for inspections from 7 p.m. until they have completed the clean-up. That is after the regular inspection of all shopping places. The owners complained at first but now they know that there will be an inspection and we have very little trouble and also no fires during the holidays.

We make evening inspections and demand that rubbish be removed before closing the stores. The regular men who pick up rubbish stand by, and the officers tell them which buildings contain rubbish.

For about two weeks before the Christmas week, we have articles in the newspapers about the danger of Christmas tree fires and decorations and the public now are using extreme care in this work. At churches, lodges and gatherings where decorations are to be used, firemen are detailed with hand-pumps. We request that they ask for this service as the firemen would rather spend a few hours at this work than to fight a fire that would be caused from carelessness.

We have not had a business house fire during Christmas holidays since 1927; nor a Christmas tree fire due to candles or decorations since 1929. I feel this all due to the consistent work of the department as stated.

James J. Evans, Chief, Everett, Mass.: During the Christmas season there are many charitable plays, minstrel shows and entertainments arranged by the various clubs and societies, which take place in small halls and schools. To protect the patrons of these places we have firemen on detail in these places to prevent overcrowding, and keep fire exits clear. These men pay particular attention to inflammable decorations and temporary wiring for Christmas trees, etc. We also detail firemen to our larger department stores and theatres.

TO BE CONTINUED

Due to the large number who contributed to this discussion, the round table on this subject will be concluded in the next issue.

We have our Fire Prevention Bureau inspectors work ahead of the Public Works Department trucks and order all rubbish out of stores. By this method we have eliminated store fires completely. We have not had a store fire caused by rubbish during the years 1932, 1933, or 1934. The larger stores remove rubbish daily. In the rear of these stores we have forced the owners to build cheap storehouses covered with metal for the storage of rubbish. These are emptied twice a week.

Our Fire Prevention Bureau inspectors visited every school in the city and talked to the children about dangers of Christmas trees. To impress the children we had firemen remove the trees from the schoolhouses just as soon as the various Christmas parties were finished.

Robert M. Tappin, Chief, Gardner, Mass.: We have a regular inspection in December during the Christmas season and in addition to this we give all the time possible to inspections. These extra inspections include stores, schools, places of entertainment, etc. The only way I know to prevent the accumulation of rubbish in stores at the busy Christmas season is to inspect daily, if necessary.

We discourage the use of candle lights at all times and everywhere. I know of only one home in the city that uses this type of decoration.

John Tisius, Chief, Alton, Ill.: We inspected all hotels, schools, hospitals and orphan's home and have seen that all rubbish was cleaned up and all fire extinguishers refilled. We have also urged, in a case where no fire escapes were available, that a rope be placed in the room in the event of fire that persons would not be trapped.

We made inspections every day before the department stores opened in the business district and firemen were placed at the doors to warn the public that there should be no smoking inside the buildings. Firemen were also stationed inside the store buildings. After closing hours the firemen again went over the building giving it another close inspection.

We went to the schools and made talks to children to warn their parents not to use candles but electric lights on trees, and we published warnings in the paper "that this is Christmas week," and to be careful "with matches and fires."

W. J. Dooling, Chief, Malden, Mass.: Firemen were detailed to the various large department and chain stores afternoon and evenings for a period of ten days before Christmas, to stop smoking, to prevent baby carriages from being brought into the crowded stores, and to check up on the decorations. A Christmas warning advertisement against fires was inserted in a local paper.

The accumulation of rubbish was taken care of by more frequent collections of rubbish during the Christmas period by our Street Department trucks.

We notified the public through an advertisement in the local paper to use only fireproof decorations for trees, rooms or homes and only approved electrical fixtures, which excludes candles of parafine make-up.

John C. Edge, Chief, Dover, N. J.: We inspect and caution all stores with large Christmas stocks regarding prompt removal of rubbish during the Yuletime season. Articles are printed in the local newspaper asking all people to be extremely careful and use all precautions to safeguard against fires due to carelessness in department stores and places of amusement during this season. Special request is made that no flames or candles be used near or around the Christmas tree or decorations.

A daily rubbish collections by the town garbage collectors in the business sections are made to remove rubbish and boxes. Store owners are shown the necessity of special care during the holiday rush and to be fire conscious.

Special dangers from candles are called to the attention of the people through front page newspaper comment.

J. T. Sullivan, Chief, Fall River, Mass.: During the holiday season articles and news items are inserted in the local papers pointing out the necessary precautions to be taken in regard to trees, lights, decorations and gasoline or alcohol propelled toys.

Constant inspections are made of all business districts. The cooperation of merchants in carting away any rubbish or inflammables has prevented the accumulation of

rubbish and boxes during the holiday shopping rush.

We warn the public, through the press, of the hazards that exist in the use of candles and other materials which become a serious menace when in use on a Christmas tree.

M. W. Lawton, Chief, Middletown, Conn.: Special inspections of buildings and stores, especially those stores where Christmas goods are being sold, are made during the holiday season. Merchants are asked to keep aisles and exits clear.

Firemen making the inspection ask the merchants to put all rubbish such as excelsior, paper boxes, etc., out for collection each day. We have had good cooperation from them.

The Fire Department has had published in the local papers, an article calling attention to the dangers from candles and poor electric wiring, paper decorations, etc., on trees. It is also pointed out the danger of too great crowding in halls for Christmas parties. The Fire Department has offered the services of one or two men, as a safety measure for halls or theatres.

W. Harry Lister, Chief, Rockville Center, N. Y.: Our Fire Department maintains a Fire Prevention Bureau which periodically inspects all business hazards. At Christmas time these inspections are more frequent.

Regarding residences, local newspapers insert articles requesting that particular precaution be taken, naming the more severe hazards.

The accumulation of rubbish and boxes is minimized through the cooperation of the local Sanitary Department which makes more frequent collections. In this behalf we have also resorted to the newspaper and urgently requested that Christmas-tree candle lights with open flame be banned.

I.A.F.C. Directors to Meet February 21-22

The Annual Meeting of the Directors of the International Association of Fire Chiefs will be held at Knoxville, Tennessee, on February 21 and 22.

At that time the date of the 1935 Convention will be chosen as well as the topics to be incorporated in technical program.

Officers of the Association are as follows: President, John J. Towey, Chief, Fire Department, Newark, N. J.; First Vice President, Charles J. Brennan, Chief, Fire Department, San Francisco, Cal.; Second Vice President, Robert A. Bogan, Chief, Fire Department, Baton Rouge, La.; Secretary-Treasurer, James J. Mulcahey, Ex-Chief, Fire Department, Yonkers, N. Y., and Executive Secretary, Jay W. Stevens, San Francisco, Cal.

Opposes Police Work by Firemen

An attempt was recently made in a Wisconsin city to have firemen do police duty, particularly in connection with taking police calls at fire stations.

In connection with such a plan the International Association of Fire Fighters, affiliated with the American Federation of Labor in a recent convention went on record as being opposed to such practice. The resolution adopted by that Association at that time is as follows:

"Whereas, Numerous city officials have given orders to Fire Chiefs to detail firemen to traffic duty and other police duties; and

"Whereas, This is detrimental to the efficiency of the Fire Department; be it

"Resolved, That the International Association of Fire Fighters in convention assembled disapproves of this practice; and, be it further

"Resolved, That the International officers use every reasonable means in their power to prevent this practice, and to prevent its extension or recurrence."

Toronto Department Has Busiest Year

The Toronto Fire Department, under Chief George Sinclair, has just concluded its busiest year, with 4,356 alarms, and a total fire damage $940,551, $60,000 greater than 1933. Out of the 4,356 alarms, 2,218 were actual fires, ten second alarms and one third alarm. March was the month that had the greatest loss for the entire year and showed $174,972. Automobiles ranked high for fires, with unknown fires second, and stoves and furnaces third.

Twenty-nine lives of citizens were saved by being carried out of burning buildings, and forty-two people were saved by the use of the departments' inhalators. First aid was rendered on ninety-five occasions.

One Chief and two officers lost their lives in the En Ar Co. Tanker explosion, and nine others were confined in the hospital with terrible burns.

Sixty miles of hose were laid during the year and 136,000 sq. ft. of salvage covers were spread.

J. K. Lee.

INDEX TO VOLUME LXXXVII

The Index to Volume LXXXVII, covering the issues of FIRE ENGINEERING from January to December, 1934, is now available and will be mailed to readers on request.

Boiler Explosion Wrecks Building

Explosion of a boiler weighing 1,000 pounds in the cellar of a three-story wooden building at 281 Hamilton Street, Bridgeport, Conn., on January 15 hurled the boiler through three floors of the building, through the roof and to a point

House Wrecked by Boiler Explosion

The explosion was of such force that it hurled the boiler weighing 1,000 pounds from its location in the cellar, up through the roof of a three-story building, and wrecked the house as though it were constructed of cardboard.

528 feet away, a distance of one city block away from its original location.

The body of a 39-year old man was found. He attempted to pour cold water into the nearly red hot tank. A 1,500-gallon still alleged by police to be used for the manufacture of bootleg whiskey was found in the front part of the wrecked building. The explosion was caused by quickly foaming steam in the empty boiler which had been heated by fire throughout the night, creating such tremendous pressure that it was forced upward.

A passerby at the time of explosion turned in an alarm from a street box. When fire apparatus arrived no fire was found but the building was a mass of torn fragments. In its upward course the boiler ripped through heavy beams with such terrific force that the building appeared as if it were a Japanese house of colored paper.

Thomas F. Magner.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Carbon Tetrachloride Fumes

To the Editor:

I wonder if you have available any information on carbon tetrachloride extinguishers. I am especially interested in learning if the gas given off by this type of extinguisher is in any way harmful to a human being. If you have record of any such cases I would appreciate the details of the same. Also, if a quart of this liquid were used in a room to extinguish a fire, how large a room would this amount of liquid render unfit for combustion?

Relative to my first question, if I remember correctly there was a fire in a New York subway in which this type of extinguisher caused a number of people to be overcome. I also know of a man who claims to have been "knocked out" in this manner. I have noticed a choking gas when using this extinguisher.

E. J. B.

Answer: While poisonous gas is given off by carbon tetrachloride when in contact with metal at high temperatures, the amount of the gas is too small to be a dangerous factor.

As a matter of fact, men operating in the presence of carbon tetrachloride, applied to fires, are unable to remain in the presence of carbon tetrachloride fumes, and by-product fumes, of sufficient intensity to be damaging because the fumes cause severe discomfort.

The U. S. Bureau of Mines prepared a report on the New York subway accident in 1922, in which they said:

"1. That there apparently were no really serious cases resulting from the effects of possible toxic gases;

"2. That the symptoms given in the hospital records can all be accounted for by the known effects of gases resulting from the burning of insulating materials, rubber, varnish and paint.

"3. That the symptoms given are not characteristic of phosgene or carbon-tetrachloride poisoning."

The U. S. Bureau of Mines further reported some time previously that there is no appreciable danger in using carbon tetrachloride on fires in comparatively confined spaces. The fumes are particularly pungent and the discomfort they produce will force the person to leave the vicinity of fumes well before any harm may be produced on the respiratory organs.

Using Parallel Lines

To the Editor:

We had a fire recently and the following is the hook-up used.

Fire plug on a 3-inch main; put a "Y" at the plug and ran two lines of hose each 300-feet long to fire; used ¾ and ⅞-inch nozzles. We had 70 pounds pressure at the plug. The building was only one story high. Worked both inside of the building and on the roof.

The following is a hook-up suggested by a fireman.

Run only one line of hose 250 feet and then put on "Y" and run two branch lines of a couple of lengths, each with same sized nozzles.

My contention is that the volume of water would be greater with the hook-up I used than with the one suggested.

F. E. R.

Answer: The layout you suggest, and which you used, is the better of the two, for it gives you parallel lines from the hydrant to the fire. Parallel lines always represent a smaller drop in pressure due to friction. In the event that you wish to divide each line into two lines, employing four smaller sized nozzles, you can do so without suffering much drop in pressure in the line from the hydrant to the Y connection. Such would not be the case if a single line was stretched from the hydrant to the Y.

Creosote and Soot in Chimneys

To the Editor:

I would like information with regards to creosote forming in chimneys and seeping through the chimney and staining walls and ceiling and often igniting the inside of the chimney and burning very fiercely.

Any information you may be able to give me as to prevention or cure I would appreciate it very much.

M. H. S.

Answer: Quite a wide search has been made for information on the formation of creosote in chimneys.

Rudolf Kudlich, Assistant to Chief Engineer, Mechanical Division, U. S. Bureau of Mines, has the following to say regarding formation of creosote:

"In the country districts of Virginia and Maryland it is quite common to use scrub pine as fuel. This wood gives considerable deposits of creosote, especially in the more modern chimneys having comparatively thin walls. The most common practice followed is to deliberately ignite periodically the deposits by means of a quick hot fire of paper, excelsior or wood chips, and burn them out before they have reached serious proportions. It would probably not be considered safe practice by Fire Chiefs to deliberately start a fire, but it probably would be safer to burn the chimney out when expecting it and able to control the fire than to have it start of its own accord sometime when you are not prepared."

The U. S. Dept. of Agriculture, Bureau of Agricultural Engineering, gives the following information on formation of soot and creosote and cleaning of chimneys in general:

"The cause of smoke and soot is imperfect combustion. It is usually due to one or all of the following conditions: (1) lack of sufficient air to the fire; (2) lack of proper mixture of air with furnace gases; (3) low furnace temperature; (4) too small combustion space so that the gases reach the comparatively cool furnace surface before they are completely burned, resulting in condensation of soot or tarry matter which then passes up the chimney in the form of smoke.

"Creosote is the result of condensation in the chimney. It is more likely to occur when wood is used for fuel than when coal is burned and its formation in chimneys is more likely in cold climates than in sections where the weather is moderate.

"When the draft is strong and an active fire is maintained much of the creosote that forms will be carried off into the atmosphere. The trouble is aggravated when the fire does not burn briskly and when the flue is subjected to chilling blasts as when placed in an outside wall. The walls of the chimney being comparatively cool cause condensation of the vapors contained in the smoke.

"The formation of creosote is unusual in chimneys that are surrounded by warm rooms. The outer walls of a chimney in an outside wall should be at least two bricks thick and it should be lined with a good flue lining. It is permissible to place the inner side of the tile against the brick work but it is good practice to provide an air space in the brick work on the other three sides."

Thus you see there is very little information at hand on preventing creosote forming in chimney and on removing it. It seems to be a problem of design of chimney rather than one after the chimney has been built.

THE WATCH DESK

Our inquiring reporter overhauls the firemanic news of the day

By Roi B. Woolley

Flunk

Out of 7,469 candidates for fireman in New York City, 53 per cent, or 4,004 flunked the physical test leaving only 3,465 eligible for the forthcoming severe written exams. Ten leading defects of total of 37, among the 4,004 rejected were:

Defect	Times Found	P.C. of 7,469
Chest	1,164	16.0
Vision	883	12.0
Weight	687	9.0
Flat-foot	515	7.0
Varicose veins	367	5.0
Hemmorrhoids	229	3.0
Heart	222	3.0
Height	200	3.0
Teeth	128	1.6
Varicocele	99	1.3

Total of defects exceeds the number of men because many applicants had more than one defect; one applicant had seven. Of rejects, 1,960 had one defect, 885 had two, 259 had three, 67 had four, 13 had five and one had six. James E. Finegan, President Municipal Civil Service Commission (N. Y.) said, "percentage failing is unusually high . . . pretty sad commentary on educational facilities of the city when so many boys fail on chest expansion and flat feet."

Mayor LaGuardia (N. Y. C.) himself failed in his tryout of the hand grip test. Reported that a Bronx boy who had passed physical and mental test for patrolman a year ago with physical rating of 93.50 was rejected. Grounds, half-inch shy in chest measurement. His appeal to C. S. Commission turned down.

* * *

Marblehead Hooky

Chief John T. Oliver, Marblehead (Mass.) F. D. quit because he could not induce his volunteer firemen (total 150) to go to fires. Vols irregular in duties, play hooky on Sundays and holidays, generally conduct themselves unbecoming a good smoke-eater. What's that old joke about Marblehead?

* * *

Rescued Gobbler

Cincinnati fire fighters, called to put out blaze, home of Mrs. Minnie Myder, first carried out turkey dinner then returned to house to extinguish blaze. Heat from oven ignited wall. Nearby was table heaped high with edibles. Carefully wrapping table and all in tarpaulin, firemen carried it out; gobbler also. Then turned on the extinguishers.

* * *

Collegiate

Graduates of West Point, Annapolis, University of Pennsylvania and Princeton were among 2,400 applicants for ninety vacancies in Philadelphia (Pa.) F. D. Are F. D's. going collegiate?

* * *

Modern Neros

Nice brick residence in Atlanta (Ga.) destroyed because F. D. called to scene refused to go into action. Druid Hills F. D., first called, said rules prevented them from fighting blaze; home outside city limits. Atlanta F. D. under its regulations could not respond. So house burned while firemen fiddled.

* * *

Poor Fish

Focussed through a fish globe in home of Mrs. James Sutton, Penn Yan (N. Y.) the rays of sun caused a fire resulting in $500 loss. Fish didn't do so well.

* * *

Paint Explodes

A burning truck caused a traffic jam near Hudsonville (Mich.) on heavily traveled highway. A loaded bus stopped; passengers got off to watch firemen work. Paint cargo of truck exploded, sending 17 to hospital, among them driver of truck and two firemen. Truck driver had stopped at roadside to switch fuel feed line to reserve storage tank when fire broke out. Motorists and bus passengers crowded around. Sudden sheet of flame shot out from trailer; three blasts caused by explosions of paint cargo showered flaming liquid on crowd searing flesh, setting clothes afire.

Almost similar condition occurred in Larchmont (N. Y.) recently when several men were burned to death, result of a collision between three trucks. Resulting fire exploded inflammable cargo of one truck endangering many firemen.

* * *

Moon Shine

Albert Schaefer, caretaker, estate of Captain Franz Jarka, in Pine Path, Belle Terre, near Port Jefferson (L. I.), thought he saw moon rising early one night, through mist and fog over Long Island Sound, quarter-mile north. Ten minutes later glow much brighter and he decided to investigate. Twenty minutes walk disclosed Belle Terre Lodge, four story hotel, blazing. Jarka notified manager, dining with son on first floor oblivious to fire. They escaped but Lodge didn't. Loss $160,000, despite efforts Port Jefferson and Stony Brook (L. I.) F. D's. Lack of hydrants largely to blame.

* * *

Hot Mail

Small fire in bottom of mail-chute, Supreme Court Building, Brooklyn (N. Y.) showed plenty smoke, drew crowd. Lawyers summoned Superintendent John McLinden who refused to allow anyone to tamper with Federal property. Despite entreaty of legal minds and police, no firemen were summoned. Finally a postman and mechanic arrived, unlocked box and scraped out about thirty charred letters and mess of burnt papers. Postman declined to return damaged letters to wrathy lawyers claiming once mail had been deposited in chute it was government property. Cause of fire, cigarette.

* * *

Queer Cause

Frank Madden, 75 years old, 340 W. 48th St. (N. Y. C.), critically burned when he tripped over cord of electric heater and fell to floor in such position heater set fire to his bathrobe. Neighbor smelled smoke, broke in window, entered and tore off burning robe. Madden went to hospital.

* * *

Reel Tragedy

Four children and their hostess at gay little party were burned to death in Montreal (Que.) while watching motion pictures in home of Mrs. Napoleon Desmarteau. Film ignited, flames spread through room. Resulting fire injured twelve, including three firemen.

* * *

Jewish Fire Chief

Is Battalion Chief Jacob Levy, ruling over 4th Battalion, N. Y. F. D., the only fire chief of that faith? This popular chief, born and brought up on New York's lower East Side has never filled a fire position north of 14th Street. Formerly busiest battalion in busiest F. D. in the world, last year his four engine and two truck companies responded to 1,466 alarms of which 680 were "workers." For many years he has been President of the Naer Tormid Society comprising some 300 Jewish members of the N. Y. F. D.

Merely Related But Not Recommended

No less an authority than a director of Health Education Department, Young Women's Christian Association, recommends the following stunt as a party game for older girls and boys:

"Two contestants kneel on right knee facing each other. Each grasps their own left ankle with left hand. One is given a match, the other a candle, and at a given signal an attempt is made to light the candle balancing on one knee."

It is strange that one so well versed in health and safety would recommend a naked flame near flimsy dress material, especially when the one with the match is more concerned about personal balance.

A Mammoth Radio Show is to be held by the Firemen's Benevolent Association of New Haven, Conn., at the New Haven Arena which can seat 6,000 persons. Funds are being raised to take care of the deceased members and firemen who are sick and disabled from causes that do not come under the scope of the Compensation Commissioner.

WHAT'S BURNING?

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of January, 1935. These figures, compiled from the telegraphic reports are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending January 31	Loss in Thousands of Dollars
Norwalk, Conn.—Dwelling of Chas. S. Jamison destroyed	50
Weston, W. Va.—Plant of West Virginia Glass Specialty Co.	80
Somersworth, N. H.—Bates block destroyed	80
Delphi, Ind.—Post office and adj. property	50
Jamestown, N. Y.—Five business establishments damaged	250
Little Rock, Ark.—Sylvan Hills night club destroyed	80
East Hampton, L. I., N. Y.—Maidstone Inn destroyed	125
Felicity, Ohio—Property in business section	50
Meriden, Conn.—Factory of Tredenick Paint Co.	65
Cambridge, Mass.—Apartment property at 89-91 Trowbridge St.	50
Tiverton, Va.—Dwelling of late Dr. F. E. Owsley	80
Monroe, Mich.—St. Joseph's Catholic Church and school	100
Chicoutimi, Que.—Shoe factory of Alphide Girard, damaged	50
Toronto, Ont.—Property owned by McIntyre & Taylor, Ltd.	65
Manhasset, L. I. N. Y.—Christ Protestant Episcopal Church damaged	50
Ware, Mass.—Town Hall destroyed	65
Glencove, L. I. N. Y.—Property of Dr. J. C. Ayer, Red Springs Colony	150
Manning, Tex.—Plant of Carter-Kelly Lumber Co., destroyed	125
Digby, N. S.—H. T. Warne block damaged	50
Wheatland, Wyo.—Elevator of Wheatland Roller Mills, destroyed	50
Galena, Ohio—Plant of Galena Tile & Shale Co., damaged	125
Port Huron, Mich.—Shops of Grand Trunk Railroad	200
Mt. Shasta, Cal.—Bldg. of Pacific Fruit & Produce Co.	50
South Bend, Ind.—Palace Theatre building damaged	125
Houghton, Mich.—Cohodas-Paoli Fruit Co. plant destroyed	50
Pittsburgh, Pa.—Bennett building damaged	125
Newark, N. J.—Barge owned by Hanover Oil Co.	125
Jasper, Ala.—Plant of Gulf Refining Co., destroyed	50
Billerica, Mass.—Main bldg. and gymnasium of Mitchell School	65
Catskill, N. Y.—Losee bldg. and adj. property	65
Piqua, Ohio—Butlin bldg. damaged	150
Delhi, La.—Central high school bldg. destroyed	65
Columbus, Ohio—Plant and store of H. E. Chapman, Inc.	100
Cambridge, Mass.—Apartment block destroyed	65
Des Moines, Iowa—Business bldg. at 614 Locust St.	50
Pierre, S. Dak.—Grocery of L. A. Albright & Co., damaged	50
Chicago, Ill.—Property of Wabash R. R. and Cleveland Exp. Co.	250
Iron Mountain, Wis.—Bldg. of Iron Mountain Mercantile Co.	80
Atlanta, Ga.—Old Georgia R. R. depot and warehouse	80
Georgetown, Tex.—Seed house at Georgetown Oil Mills	80
Tuscaloosa, Ala.—Corgas Hall at University of Alabama	50
Bemidji, Minn.—Several business buildings	65
Norristown, Pa.—Property in business section	65
Moncton, N. B.—Fownes and Ross buildings damaged	50
Kansas City, Mo.—Kansas City Southern grain elevator	80
West Point, Ga.—Langdale grammar and high school bldg.	70
Wichita Falls, Tex.—Plant of Wichita Falls Poultry Co.	125
Dodson, Ore.—Plant of P. J. McGowan Fish Co., destroyed	175
Victoria, B. C.—Planing mill of Puget Sound Lumber Co.	125
Dallas, Tex.—Plant of Equality Paper Box Co., destroyed	65
Newcastle, N. B.—Lounsbury block destroyed	65
Bethel, Conn.—Factory of National Fur Co., destroyed	50
Portland, Ore.—Fleischner-Mayer building, damaged	50
Minneapolis, Minn.—Business bldg. at 305 Fifth St.	65
Fort Worth, Tex.—Federal relief warehouse destroyed	80
Kentville, N. S.—Five business buildings destroyed	60
Ottumwa, Iowa—Open Bible Church destroyed	50
Greenville, Tex.—Warehouses of Greenville Cotton Oil Mill Co.	50
Athens, Ala.—Several business establishments destroyed	125
Atlanta, Ga.—Residence of O. S. Oldknow, destroyed	50
Sylvania, Ga.—Grocery plant of A. Dorman Co., destroyed	50
Augusta, Ga.—Wholesale grocery of Heath, Bolster & Turner	80
Old Town, Me.—Pythias bldg. and adj. property	80
Kansas City, Mo.—Plant of Enterprise Furniture Co., destroyed	80
Norwalk, Conn.—Whse. of S. J. Reynolds' Farms, Inc., destroyed	50
Chicago, Ill.—Wendell Phillips High School bldg. destroyed	200
Lynn, Mass.—Factory building on Central Square	200
Detroit, Mich.—Factory of E. B. Gallagher Co., damaged	100
Sylvania, Ga.—Chas. Bazemore grocery, damaged	50
Taylorville, Ill.—Ritz Theatre and adj. property	150
Carlisle, Pa.—Farmers' building, destroyed	65
Grafton, S. Dak.—Three bldgs. in business section	60
Milwaukee, Wis.—St. John's Cathedral Church bldg.	150

Fire Apparatus Lost in Catskill Fire

Fire of undetermined origin which started at Catskill, N. Y., at 2:10 a.m., January 14, wrecked the village building and destroyed the fire apparatus of Citizens Hose Company No. 5 and the uniforms. The fire spread with great rapidity and when the firemen arrived, the building was a mass of flames. A strong wind was blowing from the north and burning embers were carried about the immediate neighborhood. For a time it was believed that the entire block would become involved. Aid was rushed from Saugerties and Athens.

The fire was considered under control at 3 a.m. The property loss has been estimated at $75,000.

BOSTON DEPARTMENT HAS RUN OF MULTIPLE ALARM FIRES

Four Alarms Sounded for Church Fire, Three Alarms for Blaze on Steamer, and Two Four-Alarm Fires in Brick Buildings

By Harry Belknap

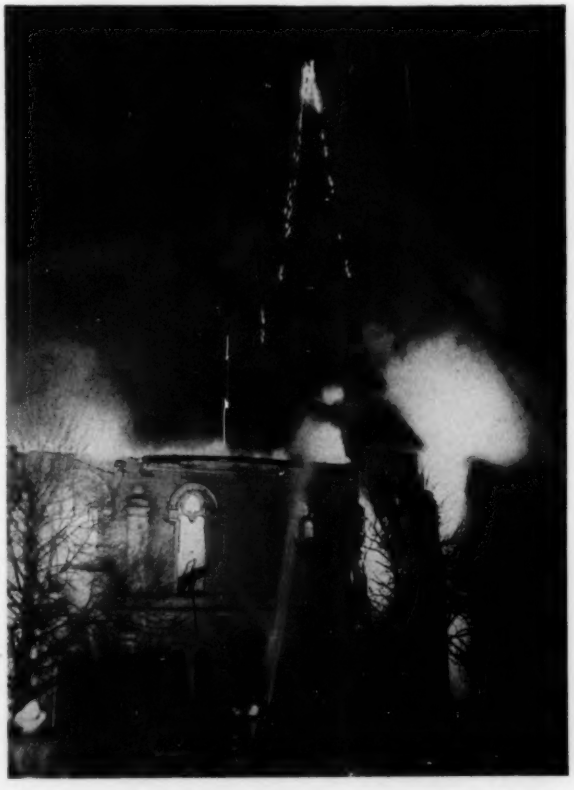
THE Central Congregational Church, a large frame edifice at the junction of Seaverns Avenue and Elm Street in the Jamaica Plain section of Boston, Mass., was destroyed by fire on the night of December 27. Flames burst through the roof. Blue sparks from a melting copper weather vane shot into the air as from a giant Roman candle. Dense clouds of smoke rolled from the church as Boston firemen, summoned by four alarms, sought vainly to check the flames which originated in the basement and swept upward through the walls to the blind attic and cock-loft.

The night was so cold that wires, trees, surrounding buildings, apparatus and men, soon became encased in ice from the freezing spray as five Morse wagon guns poured tons of water into the blazing structure. The first alarm was received at 9:03 p.m. A second alarm was sounded at 9:07 and at 9:20 Acting Deputy Chief James W. Mahoney ordered a third alarm. Chief Henry A. Fox ordered a fourth alarm at 9:48. A special call was sent in for a water tower.

The department laid 14,850 feet of hose and the sizes of nozzles used were 1⅛-inch, 1¼-inch 1½-inch, and 2 inches. One fireman sustained a broken collar bone and abrasions of the back, and another was overcome by smoke.

District Chiefs at the fire were Martell, Ward, and McCarthy.

The response of apparatus was as follows: On the first alarm, Engine Companies 28, 42, and 53; Ladder Companies 10 and 30, and the Chief of District No. 12; on the second alarm, Engine Companies 45, 24, 14, 18, and 37; Ladder Companies 16 and 23, Chief of District 13 and Chief of Division No. 3; on the third alarm, Chief Fox, Engine Companies 23, 22, 20, 12, and 26; and on the fourth alarm Engine Companies 3, 10, 16, 13, and 2; Ladder Company No. 20, and Chief of District No. 8. Wagons of the Boston Pro-



Burning of Central Congregational Church

Ruins of Warehouse in the Charlestown Area of Boston

tective Department, ambulances from the Boston City Hospital, police cars, and emergency vehicles of the Edison Electric Illuminating Company and the Boston Consolidated Gas Company also responded. Ladder Company No. 3 was special called.

Lines of hose were taken into the church by rear doorways and over fire escapes. Fire was found in the basement and although this blaze was extinguished the heavy smoke rolling from all parts of the building showed that the fire was traveling upwards through the walls and organ loft. Flames soon showed at the rear of the main floor and spread with great rapidity. Morse wagon guns were brought into play at the side and later in front, and portable guns were used in the rear. Illumination of the scene was furnished by flood lights from the two electric lighting plants of the department which went to the scene on the second alarm. The fuel truck responded on the third alarm. Two aerial ladders were used, and a number of portable ladders. The damage to the church was estimated at $75,000. The cause of the fire is unknown.

On December 21 the Boston firemen had a long and hard battle with a fire on the steamer "Ontario," of the Merchants' and Miners' Transportation Company. Flames were discovered in the cargo hold as the vessel neared the eastern entrance of the Cape Cod Canal after leaving Boston at 6 p.m., Dec. 20, bound for Norfolk and Baltimore. Captain Kauserud turned about and headed back to Boston after sending a radio message asking fireboats to meet the ship. The steamer came up the harbor shortly before 3 a.m., escorted by the fire boats, and docked at Pier 2, Northern Avenue, South Boston. Smoke was pouring from the ventilators and hatchways aft. An alarm was sounded at 3 a.m.

Boston Fireboats at Work on Steamer "Ontario"

and a second alarm at 3:13, both ordered by radio from the fire boat "Matthew J. Boyle." Lines of hose were taken aboard from the fireboats and from the land companies. Fire burning in a mixed general cargo which included wool, leather, shoes, and paints gave off a dense smoke, making it impossible to reach the seat of the blaze. Holes were chopped in the floor of the dining saloon over the cargo hold for cellar pipes, and streams were also played down the ventilators. An opening was made in the steel hull of the ship from the Fireboat "Matthew J. Boyle" with the oxy-acetylene cutting torch through which streams of water were directed into the hold.

Fire continued to spread and the ship took a heavy list to port. Shortly after 9:30 a.m. flames spread between decks and burned out the staterooms, dining saloon, and crew's mess-room and pantry. The fire came up so quickly that it was necessary to temporarily abandon several lines of hose. A third alarm was sounded at 9:55 to summon additional men and apparatus. The list of the ship increased to the danger point and at 10:30 Captain Kauserud ordered all water lines shut off, life preservers put on the crew, and the steamer towed out and beached on the flats off Governor's Island. Fire boats "Angus J. McDonald" and "Matthew J. Boyle" accompanied the "Ontario" and pumped water into the hold all afternoon. For a time several deck guns were operated from the fire boats. Chief Henry A. Fox and Deputy Chiefs Louis C. I. Stickel and John J. Kenney directed the firemen.

The Boston department fought a 4-alarm fire in the 5-story brick building on the corner of Columbus Avenue and Prentiss Street in the Roxbury Crossing section of the city. This blaze had its origin in the cellar and had evidently been smoldering and spreading for some time before its discovery as when the firemen reached the scene they found the building heavily charged with heat and smoke. The flames went up through shafts and pipe ducts and also through the walls, mushrooming on the top floor. Occupants of a fifth floor apartment, seven persons in all, were rescued by police and firemen. Lines of hose were taken into the building over stairways and up a fire escape in a rear court, also over ladders and the fire was fought from the inside amid heavy smoke. The seat of the flames in the basement was finally reached when deadlights in the sidewalk were opened and a line of hose taken down a ladder to the front section of the cellar which could not be reached from the inside stairs.

Chief Henry A. Fox was in charge of department operations, assisted by Deputy Chief Thomas H. Downey. The first alarm was sounded at 4:57 a.m., followed by a second at 5:12, third at 5:25, and a fourth alarm at 5:38.

Four alarms were sounded for a fire which caused $50,000 damage in the 3-story brick warehouse at 42-44 Miller Street, Charlestown, occupied by the Fisk Tire Company. Flames, fanned by a stiff northwesterly wind, were raging fiercely when the first apparatus reached the scene and were threatening to spread to a row of frame tenements in close proximity to leeward. Hose streams and wagon guns were brought into play to form a water curtain, and lines of hose were also taken to the roofs of the tenements. An aerial ladder caught fire before it could be moved away from the front of the burning warehouse. The night was bitterly cold and ice formed on ladders and hose wagons. The first alarm was sounded at 3:37 a.m. and District Chief Philip A. Tague ordered a second alarm at 3:39. Five minutes later Deputy Chief Louis C. I. Stickel sounded a third alarm and Chief Henry A. Fox later ordered a fourth alarm. Occupants of the tenements were taken to the City Square police station in police cars and remained there until the fire was brought under control. Firemen worked at the fire until long after daybreak and a detail was left at the ruins with lines of hose for the entire day.

Maine Chiefs Hold Quarterly Meeting

The quarterly meeting of the State Association of Fire Chiefs of Maine was held at Springvale on January 8. The speakers were Selectman Roscoe Butler, Chief Charles O. Spear, Jr., of South Portland; P. C. Charnock, of the New England Insurance Exchange; and Chief Daniel B. Tierney, of Arlington, Mass. Luncheon was served at the Central Fire Station and an inspection trip was made to the Goodall Worsted Mill. In the evening there was a banquet in Odd Fellows' Hall, followed by a round table discussion. Charles "Sandy" Chapman, of the Gamewell Company, entertained with stories.

HARRY BELKNAP.

CORRESPONDENCE

Need for Fire Detection Systems

To the Editor:

The burning of the steamship "Morro Castle" at sea and the destruction by fire of the hotel at Lansing, Mich., with its dreadful sacrifice of human life, emphasizes the importance and necessity of the early detection of fire by an automatic thermostatic fire alarm or a watchman's time detector system.

Had an automatic thermostatic fire alarm been installed and a properly drilled fire brigade been on hand, the fire could have been attacked at its origin and extinguished before it became uncontrollable in both of these catastrophes. "A little fire is quickly trodden out, which, being suffered, rivers cannot quench" is true now as in Shakespeare's day.

In the Building Departments, working under the Commissioners are trained electricians who inspect and supervise the installation of fire alarm systems. They not only detect mechanical and electrical trouble but cure it so that the systems will function when necessary to warn the inmates.

Periodic inspection of the thousands of fire alarm systems installed in factories, hotels, lodging houses, schools, hospitals, institutions and asylums give the public a measure of assurance that the fire alarm systems in these institutions will fulfill their duty to safeguard human life.

Yours truly,

PETER C. SPENCE,
Chief, Division of Fire Prevention,
New York, N. Y.

Ending False Alarms

To the Editor:

I noted with considerable interest a short article in the December issue entitled, "Hazard of False Alarm." This told of a Minneapolis fireman losing his life in an accident while responding to a false alarm—only one of many such instances. This same article also stressed the urgent need of finding some way to put a stop to, or at least materially reduce the sending of such malicious alarms.

For years the Fire Department has frequently made talks to various student groups stressing the seriousness of sending false alarms, or "pulling" or "cracking" a box. The main points are the danger to firemen and apparatus, the danger to other automobiles, the expense to their parents as taxpayers for needless runs and wear or destruction of apparatus, and especially the fact that should a real fire break out while the apparatus is responding to a false alarm, that fire could gain considerable headway before an outlying company could complete the run.

Some time ago the department had printed small sticker notices which were affixed to the inside of the glass on each fire alarm box in the city. These notices, which cover about one-half of the glass, are headed with the word "Warning" and state that "the maximum penalty of maliciously sending a false alarm is a fine of $1,000 or one year imprisonment or both." The posting of these notices which cost next to nothing, had a very deterring effect as it caused a person to think twice before he broke the glass and pulled the hook.

Occasionally an older person is caught "pulling a box." Usually it is some one who has imbibed a bit too much, or some one with an imagined grudge against the Fire Department. In most cases youths in their "teens" are responsible. One of their favorite methods of operation is to break out the glass on some particular box, then possibly several hours later return and quickly "pull the hook." By breaking the glass beforehand, it becomes a very simple matter to later on just touch the hook as they pass. Youngsters with bicycles are bad offenders. A small boy seated on a bicycle is at just the right height to crack a box, and he is able to make a noiseless and speedy departure. Whenever a box is reported with the glass out, some one is sent to replace the glass, or in some instances the box is watched to see if any one comes back to pull it.

A regular member of the department is rewarded with two weeks vacation with pay if he catches a person sending a false alarm. This only applies if the fireman is on his off-shift or is off duty at the time. This encourages firemen to spend a little of their time in watching boxes recently pulled. When a person is caught, and is sentenced or fined, it is mentioned in the newspapers which helps remind the public that they do run a danger of being caught.

I have lately wondered why a fire alarm box is not designed that would immediately sound a signal when the hook is pulled. So many times a box on a prominent corner is maliciously pulled, yet persons living nearby hear nothing and consequently see nothing until the apparatus arrives. If upon pulling a box a fairly loud signal sounded continuously, calling attention of those nearby, it would be a good thing from two angles. It would be deterrent to any one thinking of sending in a false alarm, and in the case of a legitimate alarm, it would warn those in the immediate neighborhood at once.

Very truly,

GEORGE C. TICHENOR,
Honorary Battalion Chief,
Los Angeles Fire Department.

Fire Well Handled by a Veteran Chief

To the Editor:

On January 15, Des Moines experienced a large theatre fire in the heart of the down town district. This building was about sixty years old and was next to a five story building about the same age. The rear end of the building was separated from another building by a twenty foot alley, and on the other side was an eighteen story building separated by a twenty foot alley.

The fire occurred about 10:30 a.m. and as is the habit of the Fire Department in Des Moines, all down town fire alarms are answered by equipment from two stations. This alarm was answered by three stations.

Chief William Burnett, the 75 year old Chief of the department answered the first alarm. He immediately sent in a second alarm and called in all off shift men. In a short time he was forced to call out the men on account of the danger of falling walls. From then on the fire was fought from the outside and by 12:30 the most of the companies were returned to quarters.

I can truthfully say that this was one of the best handled fires that I have had the opportunity of witnessing. Chief Burnett is one of, if not the oldest Fire Chief in the state of Iowa. On February 22 he will celebrate his 42nd anniversary as Fire Chief of the Des Moines Fire Department. The other oldest fire Chief is George M. Kellogg, of Sioux City.

Very truly yours,

PAUL SCHMIDT,
Senator, 25th District

Advantages of Firemen's Credit Association

To the Editor:

I note in a news article on page 28 of the January issue of FIRE ENGINEERING, that the firemen of Waterbury, Conn., have formed a Credit Union, and we surely wish them success. Here in Ogden we formed one in cooperation with the Police Department in May, 1931, and it has proved of great benefit to us. I will be glad to have you pass the good work along.

I have been a member of this department for thirty-four years, and was promoted to the office of Chief in July of last year. I can see the need of such service in all departments where there are sufficient membership to organize one.

Very truly yours,

N. J. HINTON,
Chief, Fire Department, Ogden, Utah

On Selecting a Fire Chief Out of Town

To the Editor:

Your editorial in December, 1934, FIRE ENGINEERING, against selecting a Fire Chief from out of town draws an unwarranted conclusion, in my opinion, from a sound premise. Certainly "ambition and industry on the part of the department personnel is best fostered by the assurance that the highest reward in the service—promotion to the position of Chief—is attainable by any man if he is qualified for the position and is deserving of the responsibility." The Commission on Public Service Personnel, in its national report just released, agrees thoroughly with this idea when it suggests a "career service system" for all branches of the public service, and that for any class of service (they suggest four general classes) new recruits should be brought in

at the bottom and top positions filled by a ladder system of promotion tests from those in the service. But to make this most effective, the report recommends the abolition of residence requirements in recruiting for the top posts.

This is the real merit system, and is well exemplified in English local government, where recruiting for top positions is done on a nation-wide scale by advertising openings and selecting from an open field on a qualification basis. We have already approached this career basis for recruitment in the field of education, but have only made a beginning in the other branches of our city service. In a real sense of the word, no school superintendent or principal is a "stranger" to any teacher anywhere. So, also, no Fire Chief, selected on a merit or career basis, is a "stranger" to any professional fire fighter anywhere, no matter where the Chief may have secured his experience. There is a community of interest in both cases, because of a common life-work. In selecting men for promotion, the important thing is qualification for the higher responsibility, not residence.

Opening promotions to Fire Chief positions to inter-city competition, will not restrict the opportunities of advancement for good fire officers in any department; in fact, it will enlarge the opportunity, and at the same time raise the level of competence of our whole fire service.

Personally, I do not believe any arbitrary, or hard-and-fast, rule should be adopted. The executive officer, whose duty it is to make the appointment of Fire Chief, and his personnel officer or department, should decide in any case whether it is to the advantage of the service to open the promotion test to qualified applicants from the outside or to limit the test to those in the department. If a formal grading system is practiced, it would seem to me desirable to allow a few points of preferential credit to applicants within the department, on the theory that their already acquired knowledge of the special and local fire-fighting and fire prevention conditions is a definite item of qualification. Many different factors, however, should enter into a promotion examination and decision.

Certainly outside appointments of Fire Chief are not made for "political" reasons, and while I think inside applicants that are quailfied will have an advantage, I do not believe outside appointments should be outlawed. I think you will agree with me the development of a career fire service on an inter-city basis will stimulate its morale and improve its competence. In developing such a service (it will come slowly and haltingly, of course) we should use every opportunity we have to eliminate the extraneous elements in our recruiting systems, such as residence, veterans' affiliations, religion, political service, etc., and insist only on qualification for the job. And you are absolutely right in suggesting that "those vested with the authority to make the selection must possess sufficient intelligence to pick the right man."

Very truly yours,
C. C. LUDWIG,
Assistant Editor, *Public Management*

Hazardous Economy

To the Editor:

Your Editorial in the January issue of FIRE ENGINEERING under the caption "Hazardous Economy" is one which every purchasing agent, whether he is Mayor, Selectman or Fire Chief, should read and remember.

Very truly yours,
EDWARD F. DAHILL,
Chief, Fire Department, New Bedford, Mass.

Foam and CO_2 Extinguishers for a Tar Fire

To the Editor:

We are interested in your answer to handling a tar fire in Questions and Answers, issue of October, 1934. We are, therefore, taking the liberty of suggesting another way to put foam onto a tar fire, providing, of course, there are six or eight inches of outage in the tank, in which case the foam stream should be directed against the side of the tank above the burning tar. In other words, the operator of the extinguisher would stand five to eight feet from the tank and direct the stream of foam against the side of the tank at an angle of about 45 degrees and above the surface of the burning tar. In this way the pressure of the foam stream would continue to force the foam around the tank until the tar surface was entirely covered and without agitating it in any way.

We would also recommend CO_2 fire extinguishers for this particular fire risk. A small 10 or 15 lb. extinguisher would very easily handle such a fire as described.

Yours very truly,
J. P. MALONEY,
Assistant General Sales Manager,
Pyrene Manufacturing Company, Newark, N. J.

RICHARD L. SMITH REAPPOINTED CHIEF OF PITTSBURGH, PA., FORCE

Change in Ruling Political Party Caused Resignation in March — Chief John Heinz, Successor, Dismissed by Mayor

POLITICAL changes resulted in the removal of Richard L. Smith as Chief of the Pittsburgh, Pa., Fire Department on March 1 of last year. The same administration which removed Chief Smith has now removed Chief John Heinz, who was advanced from the rank of hoseman to fill the vacancy in the office of Chief. Chief Smith has been reinstated.

Chief Richard L. Smith

Chief Smith, at the time he was forced to resign, had a record of thirty-three years in the department, of which eight were as Chief.

Recently Mayor McNair ordered Heinz to take a month's furlough and then later handed him notice of dismissal. Shortly after Heinz was informed of this change, Mr. Smith was sworn in as Chief.

The Mayor did not deny that he had been playing politics when Chief Smith was dismissed last year. He also said:

"Not long ago, I went to Williamsport to make a speech and I was introduced to the Fire Chief there. He turned his back. He didn't want to shake hands with me. I asked him what was wrong and he said that I was playing politics with the Fire Department. He said that I had fired the best Fire Chief in the country to put in a politician."

At the time that Chief Smith was removed from office in March, the *Post-Gazette* stated editorially:

"Mayor McNair violated a sound principle and disappointed many of his well-wishers when he removed Chief Richard L. Smith of the Bureau of Fire for mere considerations of political patronage. The public certainly was satisfied with Chief Smith, under whose regime the per capita fire loss in the city had been coming down, being in the five-year period prior to 1933 the lowest in the country among cities of comparable size."

Fire Fighting on Historic Columbia

Historic old Columbia, in Tuolumne County, California, now a picturesque "ghost town" but in the days of '49 one of the largest and most thriving of all California's famous gold-mining camps, is to be a State Park.

There was plenty of excitement in the early days in this interesting town. But, for stirring up the entire populace, nothing approached the periodic contests of Columbia's two fire engine companies. In 1861 the American residents organized a company and purchased a flashy engine named "Papeete," which had been made for Tahiti, but, through some mix-up, was not shipped from San Francisco. Then "the foreigners got their backs up" and formed a rival company, with an even more elaborate fire engine. Thereafter the two organizations held frequent contests to see which could pump water farthest or which was fastest at throwing a stream over the "Liberty Pole" in the plaza. The trophy was a banner on which a rooster was painted, and for years

A RECORD OF PUBLIC SAFETY

at the

CHICAGO WORLD'S FAIR

The Glorious Spectacle That Was the Century of Progress Exposition Closed Two Highly Successful Years With a Proud Record of No Fatal Accidents and a Total Fire Loss of Less Than $5000

DIRE forecasts of failure, fatalities and costly, or even catastrophic fires, preceding the opening of the Century of Progress Exposition, were without foundation according to reports substantiated by police and fire records of Chicago.

With its turnstiles closed to the public on Oct. 31, one might imagine an impressive column of statistics could be obtained from the Century of Progress officials telling the story of fatal accidents and fire destruction. But the surprise comes with the boast of police and fair officials that for the two years duration of the Exposition a perfect safety record was chalked up for those agencies in charge of public safety.

More than 37,000,000 trusting souls pushed the stiles entering the Fair to be swallowed up by the milling crowds, and exposure to accidents seemed everywhere prevalent, but a few scratches and a few black eyes from the elbows of gesticulating arms were perhaps the extent of personal damage. Not one death due to accident was reported to the Fair police, and remarkable this was because during the World's Columbian Exposition of 1893 the casualty list was 54.

Elaborate Detection System

Insurance men, particularly the skeptics who considered the Fair a bad fire insurance risk, will be impressed to discover their predictions were wrong. The Century of Progress closed its books last week with a total fire loss to its protected buildings of less than $5000. This was due, in a large part, to the installation of 50 miles of minute American District Telegraph detector tubing.

The fire hazards, coupled with the occupancy hazards, were unusual. But, realizing the construction of Fair buildings and other contributory factors caution was used. In addition to the elaborate A.D.T. Aero Automatic Fire Alarm Service, a second line of defense was set up, consisting of building watchmen whose movements and patrol were checked by the A.D.T. Compulsory Tour Service, in all, comprising 211 separate stations. Special hook-ups for calling the police were an added feature of the fire alarm system. Outside, along the streets at 65 separate points were manual fire alarm boxes.

Four fire stations, operating from strategic points in the grounds, were poised at all times in readiness to discourage widespread fire destruction.

The Chicago Fire Department was informed by private lines and was in readiness to respond as reinforcements when the need arose. Upon several occasions when very large crowds were anticipated, Chicago placed additional apparatus in the grounds at the disposal of the Exposition companies. Chicago's Fire Insurance Patrol, under Chief F. McAuliffe, was always in evidence to assist in any salvage operations.

Hold-up Alarm Service

The burglary hazard was no great worry of exhibitors as a burglary-hold-up alarm service enmeshed the extra-valuable exhibits, making theft within the grounds virtually impossible. The Diamond Exhibit was the greatest concentration of value on the grounds. The display was housed in a specially constructed steel and bullet-proof glass case and protected with the A.D.T. Phonet Alarm System. No attempts were made to attack this exhibit but occasional tests were made by the owners and burglary insurance interests, and the response by guards was a matter of but 90 seconds. The Fair banks were likewise protected with half-hour reporting devices and hold-up mechanisms.

The above excerpts from a recent article in "The Spectator" illustrate how A.D.T. Central Station Protection Services cooperate with fire fighting forces by insuring speedy and accurate alarms. *A.D.T. Automatic Protective Services include . . .*

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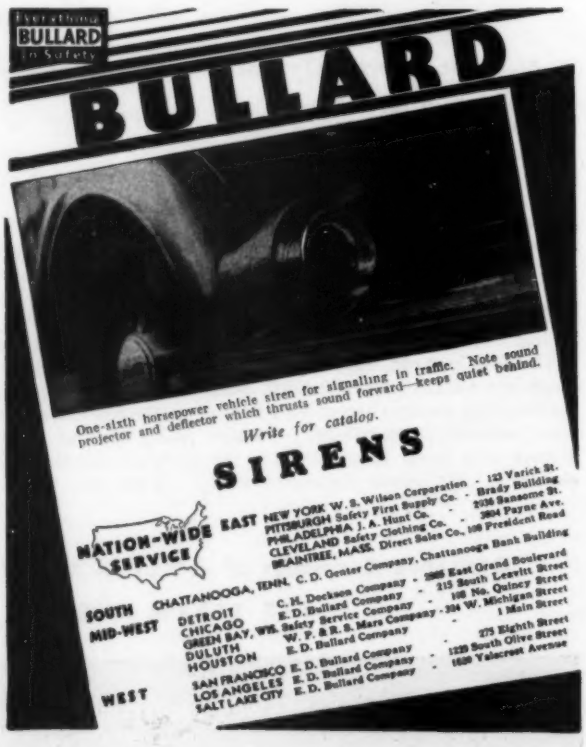
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GREEN BAY, WIS. Safety Service Company - 108 No. Quincy Street
DULUTH W. P. & R. S. Mars Company - 324 W. Michigan Street
HOUSTON E. D. Bullard Company - 1 Main Street
WEST SAN FRANCISCO E. D. Bullard Company - 275 Eighth Street
LOS ANGELES E. D. Bullard Company - 1228 South Olive Street
SALT LAKE CITY E. D. Bullard Company - 1520 Yalecrest Avenue

an imitation of a rooster crowing was the signal for a free-for-all fight. Both engines were in use until two or three years ago and are still intact.

The Columbia of today, a community of barely 200 souls, is to be maintained as a monument to the Columbia that was, that in its heyday boasted a population of 15,000 and vied with Sacramento for selection as the State capital. The old Columbia produced $87,000,000 worth of gold and was known far and wide as the "Queen of the Southern Mines." Its few remaining old steel-shuttered buildings are to be preserved as shrines for Californians and tourists who still are thrilled by tales and relics of "the days of gold."

C. W. GEIGER.

300-Room Frame Hotel Destroyed

Three hundred firemen working in zero weather battled a fire which destroyed the historic Prince Hotel containing three hundred rooms at Rockaway Beach Boulevard, Queens. Fire started near a small porch in the rear of the hotel about 7 a.m., January 28. Battalion Chief Daniel Sullivan, respond-

Fire Which Destroyed One of the Largest Hotels in the Rockaways

ing with the fire alarm companies, immediately ordered four more alarms. The wooden structure had a stucco facade, and was unoccupied at the time.

Flames caught on the roof of the Melrose Hotel, a smaller structure but this was extinguished with little damage. Police ordered occupants of fifteen small homes close by to vacate.

Falling walls and a falling tall chimney were a menace to the firemen as they worked for two hours to control the fire. Absence of wind contributed much to the safety of the adjoining buildings. Dr. Harry M. Archer was on the scene and treated several firemen for frostbite.

The hotel was built in 1888 and was rebuilt in 1929. When built it cost about $200,000.

Walworth Firemen Re-Elect Dr. Bachelle

Dr. C. V. Bachelle, Chief, Delevan Lake Fire Department, was re-elected President for the fourth time of the Walworth County Fire Officers Association at the annual meeting held at Sharon, Wis. Herman Robb, Sharon, was re-elected Vice-President, and Chief C. A. Foster, Lake Geneva, Secretary-Treasurer. Eighty members were present at the meeting.

Frank C. McAuliffe, Chief, Chicago Fire Insurance Patrols, spoke on the value of organization, and gave general directions as to methods of handling fires. Chief John P. Stahl, Marshal, Third Division, Chicago Fire Department, spoke on the organization of rural fire protection and also methods of fighting basement fires; V. C. Rutter, Engineer, Wisconsin Rating Bureau, outlined the necessary requirements for the different ratings recognized by the Wisconsin bureau and made many valuable recommendations. Capt. Emory Coffin of Engine Company No. 78, the champion company at the Drill School in the Chicago Fire Department, gave a talk on methods of drill of the company, as carried on by his prize winners. Capt. Curt E. Jansen, Chief Mechanic, Chicago Patrol, presented instructions and advice as to the care and maintenance of apparatus in the winter. C. F. Isakson, Chicago Fire Department, Aide to Chief Stahl, gave an interesting account of the methods of sending alarms and special calls, as used in the Chicago Fire Department. Chief Robb and Chief Foster also spoke.

It was one of the most successful meetings of this Association. It was followed by a dinner and smoker.

Low Fire Losses Cause New Worries

In an article in *Business Week* is made the statement:

"For the second consecutive year 'freakishly' low fire losses improved underwriting profits to a point where fire executives worry about the demand for rate reductions certain to come when annual statements reveal the facts. Individual companies report gains in premium income ranging from five to ten per cent with estimates for all carriers centering around seven per cent, indicating a total for the year around $650 millions. That reversed a trend that brought 1933 premiums thirty-three per cent under the record set in 1919. Some companies sacrificed greater immediate business for the sake of future profits by eliminating unprofitable lines that had been added in earlier attempts to sustain volumes."

The article further continues that,

"Natural and moral risks will return to normal in time and it is that thought that wrinkles the brow of the insurance man when he hears of state rate-making bodies here and there inaugurating cuts, and contemplates the pressure that will come for more of the same."

Two New York Firemen Killed

Two members of the New York Fire Department were killed and more than a score of fire-fighters were thrown into the cellar, when a stairway of a burning building in the Brownsville section of Brooklyn, N. Y., gave way. Some were pinned down by the wreckage and had difficulty in keeping their faces above the water level in the cellar.

Thirty or more firemen who had received slight injuries received first aid treatment at improvised dressing stations.

Fire had started in the basement of the tenement which was occupied by seven Negro families and one white family. The first fire company to arrive sent in a second and third alarm.

Chief Grove of Hannibal, Mo., Dead

William J. Grove, Chief of the Hannibal, Mo., Fire Department and a member of the service for fifty years, died at the age of nearly seventy-two as the result of pneumonia.

He came to Hannibal fifty-five years ago, and joined the volunteer department in 1884. He was a volunteer firemen for nine years and a minute man for eleven years. For the following twenty-one years he was a hoseman. Mr. Grove became Assistant Chief on June 1, 1925, and Chief on June 1, 1931, after the death of Chief T. B. Parks. In November he observed his fiftieth anniversary with the department.

Chief Grove is survived by his widow, a son, a grandson, a brother and a half-sister.

For over forty years he was a member of the I.O.O.F. During funeral services, offices in the city hall were closed as a mark of respect.

The Late Chief W. J. Grove

Judge Hoop Given Testimonial Dinner

A testimonial dinner was tendered to Judge Harry M. Hoop, of Bronxville, N. Y., by the Eastchester Township, N. Y., Fire Department at the Tuckahoe Fire Headquarters, Tuckahoe, N. Y., on the evening of January 22. The occasion was also the celebration of the placing of the paid members of the department consisting of the Chief, Assistant Chief and 22 men, under civil service rules. Judge Hoop, who served two terms as President of the Firemen's Association of the State of New York, being at present past-President of the organization, was instrumental, with Seth T. Cole, Chairman of the Law Committee, of the association, in having the men of the Eastchester department placed under civil service. The application to this end was made by Mr. Cole. Judge Hoop, with Chief Arthur Steuhl, of the Eastchester department, attended a hearing at Albany on October 18, 1934, before the New York State Department of Civil Service, and urged the extension of the Civil Service Rules to cover the Eastchester Fire Department's paid men. The Civil Service Commission, at the meeting on October 18, adopted a resolution amending Civil Service Rule XXIV, extending to the paid men of the Eastchester Fire Department civil service protection. This action was approved by Governor Lehman on November 9, which automatically places all present paid men of the department in the competitive class of the classified civil service. Any future vacancies must be filled through examination by the Commission.

Beefsteak Dinner in Honor of Judge Harry Hoop

At the dinner, George T. Kelly, Trustee of the Firemen's Home at Hudson, N. Y., acted as Toastmaster. The following speakers paid tribute to the work of Judge Hoop for the volunteer firemen of the state:

Seth T. Cole, Franklin B. Holmes, Director, New York State Employees' Retirement System; Chief Grabb, New Rochelle; Ex-Chief Hand, Mount Vernon; Chief John J. Brennan, Pelham Manor; Supervisor Richard Bennett, Eastchester Township; Fire Commissioners McNamara and Comstock, Eastchester; Fire Commissioner Curtin, Mount Vernon; Chief Chambers, Yonkers; Chief Gibson, Mount Vernon; Chief Steuhl, Eastchester, and Frank Wadelton, President, United Paid Firemen's Association of Eastchester.

Judge Hoop was presented with gold mounted pen and pencil by the members of the Eastchester Fire Department. Among others present at the banquet were: Ike Hungerford, New York State Employees' Retirement System; Dr. Weston, Surgeon, Eastchester department; Assistant Chief White, Eastchester; Fire Commissioner Stewart, Eastchester; Captains Tobin and Corbett, Eastchester; William Gorman, Chairman, Board of Directors, Firemen's Benefit Association, Eastchester, and others.

John T. Oliver, Chief of the Marblehead, Mass., Fire Department, has resigned because it is said he could not get his firemen to go to fires. The department has 150 volunteer firemen but response to alarms has been poor.

Officials of Atlantic City, N. J., have rescinded an order which forbade members of the Fire Department joining the International Association of Fire Fighters. Accordingly a charter has been granted to Local No. 198, Atlantic City.

Cost of Government Service

A member of the Detroit Board of Assessors has computed the cost of government as paid by the owner of a $4,000 house. The total amount paid is $98.63 a year. Of this amount $7.33 a year goes for fire protection costs. In comparison some of the other annual costs are education, $29.54; police protection, $16.02; garbage removal, $2.23; public sewer, $1.39, and debt service, $15.69.

McFadden Chief of Dayton, Ohio

William W. McFadden has been appointed Chief of the Dayton, Ohio, Fire Department to fill the vacancy caused by the retirement of Chief Ramby.

Chief McFadden was born in Iowa, February 26, 1879, and has resided in Dayton for the past thirty-six years. He was appointed a member of the department on December 4, 1901. On January 2, 1908, McFadden was promoted to Captain and on June 1, 1915, Assistant Chief.

State May Abolish Fire Marshal Office

A movement has been launched to incorporate the Oklahoma State Fire Marshal's department with the state police system. The Fire Marshal's department is entirely supported by a tax upon the Oklahoma premiums of fire insurance companies, and it was created for the specific purpose of reducing the state's fire loss. It is feared that the merger will defeat the original conception of the office. The joining of the two departments is being opposed by fire insurance interests in Oklahoma.

109 False Alarms on New Year's Day

Between 11:30 p.m. New Year's Eve and 1:30 a.m. New Year's Day, a time interval of two hours, a total of 109 false alarms were turned in in New York City. However the Fire Department were prepared and an order had been issued beforehand that only one engine and one hook and ladder company was to respond during those hours. Where additional box alarms were sent or where there was a telephone alarm, the full complement of apparatus responded.

Marker for Defective Hydrants

Metal discs for indicating the presence of defective hydrants have been designed by Deputy Chief John J. McCarthy of the New York Fire Department. Chief McCarthy believes that the use of these discs as a marker around the hydrant outlet will prevent delay in getting water to a fire as the device represents a cheap, efficient way of denoting the presence of defective hydrants to members of the department.

These discs were described in full on page 443 of the December, 1934, issue of FIRE ENGINEERING. The department has issued General Order No. 51 regarding their use.

Hydrant With Disc

Dallas Passes Fire Prevention Law

After two years' effort, Dallas, Tex., has passed a fire prevention ordinance which is comprehensive in scope. The ordinance covers the regulations for fire prevention and protection in connection with the use, handling, storage, keeping, manufacture and transportation of combustible substances.

Chief William T. Hirdes, Belleville, N. J., died January 18 as the result of a heart attack. He was born in New Orleans and came to Belleville with his parents when seven years old. When twenty-one he joined the volunteer department and when it became a paid department in 1923, he was named Chief. He is survived by his widow, one daughter and a son.

In all well-informed circles they are talking about BUCKEYE Fire Department Equipment

Fig. 937—WARNING WHISTLE

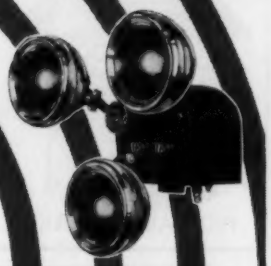

Fig. 938—ROTO-RAYS

The term "Warning Signals that Warn" as applied to Buckeye Fire Whistles and "Roto-Rays" has been well known for many years. For a piercing, attention-compelling sound-signal nothing can even approach this whistle. The "Roto-Rays" with its powerful revolving red lights instantly identifies a piece of fire apparatus or your officers' cars many blocks away.

And now well-informed circles are beginning to talk about Buckeye Shut-off Nozzles that WILL NOT LEAK. There is a complete line of these nozzles. And they are giving amazing results everywhere they are in use.

The latest member of the Buckeye family is the expander which takes all segments from ¾" to 3" inclusive, and special sets of segments are available for attaching 2½" coupling to 3" hose.

Write for complete information on any—or all—of this equipment.

BUCKEYE IRON & BRASS WORKS
DAYTON, OHIO

Fig. 900—SHUT-OFF NOZZLE

Fig. 926—EXPANDER

BOTH HANDS FREE

When you use this New and Improved

ECOLITE

Put it on your arm;
Set it down;
It *tilts* to any degree of a circle!

Chief: This Ecolite has everything you demand in a hand-lantern.

Complete Ecolite weighs less than 3 lbs., yet outlasts a flashlight 5 times.

Crystal clear or ruby lenses interchangeable.

Inexpensive BRACKETS, easily installed, hold Ecolites *rigidly*.

301V ECOLITE

ECOLITE

Already Standard Equipment Among Metropolitan Fire Depts.

Be Sure to Specify Ecolites

Write

ECONOMY ELECTRIC LANTERN CO., Inc.
CHICAGO, ILL.

UNIFORMS
AND
FIRE CLOTHES
MOST COMPLETE LINE

Uniforms — **Shoes**
Uniform Overcoats — **Jackets**
Boots — **Shirts**
House Pants
Bunker Coats and Pants
(with or without detachable lining)

All Uniforms and House Pants are Made to Measure and UNION MADE

We are patentees of the detachable feature of firemen's coat which provides a heavy blanket plaid lining (70% wool) which is removable in warm weather. The most satisfactory garment for winter and summer wear. Water-proof bunker pants with detachable lining in same materials.. The outer water-proofed fabric will not absorb water, and ice will not cling to it. Very tough and durable, will turn 10 penny nail. Our garments are the result of years of study and experimentation. Bunking outfits and coats without detachable lining if preferred. We have them all—a complete line for firemen. Write, or wire if you are in the market for immediate delivery or send for catalog showing our complete line. We solicit opportunity of bidding on city orders.

Illustrating Fireman's coat and bunking pants, both with detachable lining.

SPECIAL CLOTHING CO.
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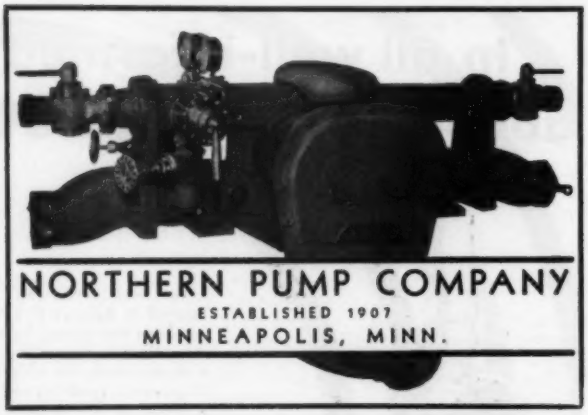
FEDERAL VERTICAL SIRENS

The modern audible fire alarm system, instantly recognized above all other noises. Guaranteed dependability—entirely weatherproof.

Federal Engineers will make a survey of your village, town or city, free of obligation. Know the right Fire Alarm for your community by knowing FEDERAL.

Write for our new Bulletin No. 41A

FEDERAL ELECTRIC CO., 8702 S. State St., Chicago



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ESTABLISHED 1907
MINNEAPOLIS, MINN.

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SAINT PAUL, MINNESOTA

It is generally known that Hale pumps are designed and built to serve efficiently with far better than average endurance.

HALE FIRE PUMP CO., Inc.
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Highly Endorsed by Fire Chiefs Everywhere!

Chief Henry of Lexington, Ky. *writes:*

"The 'Fire Chief's Handbook' is the work of one of vast experience. Every fireman should have a copy for study and reference."

Chief Gambrell of Dallas, Texas *writes:*

"It is very instructive and helpful. We find this book very convenient to refer to in our school work."

THE FIRE CHIEF'S HANDBOOK

By FRED SHEPPERD

In Collaboration with the EDUCATIONAL COMMITTEE *of the* INTERNATIONAL ASSOCIATION OF FIRE CHIEFS

THERE have been books on fire-fighting, but never anything so complete and authoritative as the "Fire Chief's Handbook." This book, a gold-mine of practical, helpful data, gives a reliable, up-to-the-minute answer to almost every question that might come up in modern fire-fighting practice.

For progressive fire chiefs, interested in up-to-date fire fighting methods, the "Fire Chief's Handbook" will be a mighty valuable reference guide. It gives to ambitious fire department officers and men, in plain, understandable form, information that should prove extremely helpful in preparing for promotional examinations. In fact, it is a book every fighter needs and ought to have. *The Edition is Limited—Better Order Your Copy Today.*

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If the book isn't what you expected, return it within 5 days and your money will gladly be refunded.

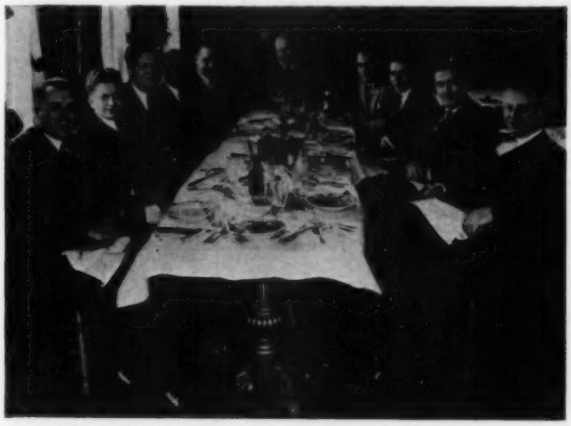
Here are some of the subjects covered:

- FIRE DEPARTMENT TOOLS AND EQUIPMENT
- MOTOR FIRE APPARATUS PUMPS
- FIRE EXTINGUISHERS AND THEIR USE
- FIRE STREAMS
- FIRE-FIGHTING METHODS
- FIRE STATION DESIGN
- TRAINING OF FIREMEN
- SALVAGE OPERATIONS
- BUILDING INSPECTION
- VENTILATION AT FIRES
- CARE OF FIRE HOSE
- CHEMISTRY OF FIRE
- HEAT AND ITS ACTION
- DRILL TOWERS
- DRILLS AND EVOLUTIONS
- FORCIBLE ENTRY
- EXPOSURES
- STANDPIPE WORK AT FIRES

—and Many Other Things

Robert D. Hazzard, Inc., Has Anniversary

Robert D. Hazzard, Inc., Yonkers, N. Y., Sales Representatives of the American-LaFrance & Foamite Industries, Inc., held its first annual dinner at Paul's Restaurant, New York City. R. D. Hazzard, President, for many years associated with the American-LaFrance Company, gave a brief talk on the business transacted during the past year. This



Anniversary Dinner of Robert D. Hazzard, Inc.

Left to right, R. T. Sluiter, John Kolody, W. H. Turner, H. E. Miller, G. F. Doray, R. D. Hazzard, George McDonald, D. Davidson, J. J. O'Mara and H. E. Johnson.

organization handles the apparatus account of the American-LaFrance in eastern New York state, Connecticut, western Massachusetts and parts of Rhode Island and New Jersey. It also handles fire department supplies and hose for that company in a large part of the territory.

Louis Sass Chief of New Brunswick

Louis Sass, Assistant Chief of the New Brunswick, N. J., Fire Department has been appointed head of the department to fill the vacancy caused by the retirement of Chief Harry J. Francis. Chief Sass has been a member of the department for twenty-two years. Ex-Chief Francis served as Chief for twenty-two years and retired on October 16, 1934.

Col. "Smoky" Rogers from Now On

Harry K. Rogers, better known as Chief "Smoky" because of his clown character which he created to teach fire prevention to school children, has been appointed "Colonel of Kentucky Fire Fighters" by Governor Laffoon. In December he conducted a regional school for the Southeastern Kentucky Municipal League and Firemen's Association. Col. Rogers will take part in the state college to be held at the University of Kentucky, Lexington, February 12-14.

Ahrens Goes with Fabric

The Fabric Fire Hose Company has announced the appointment of John K. Ahrens as manager of its Pittsburgh office, effective January 14. Mr. Ahrens, who is the only son of John P. Ahrens, of the Ahrens-Fox Fire Engine Company, has had considerable experience in the selling of motor fire apparatus. He is 31 years of age and studied at the University of Cincinnati.

The Pittsburgh territory embraces the central and western portions of the state of Pennsylvania.

George P. Lasher, has been appointed Chief of the Edgewater, N. J., Fire Department. On September 4, 1910, he joined the volunteer department at the age of eighteen and on December 6, 1915, was appointed to the paid force. He was advanced to master mechanic on July 11, 1918; Captain and Master Mechanic, January 17, 1920; Chief, January 1, 1935.

Lumber Yard Makes Severe Fire

Three alarms were sounded for a fire which started in a lumber yard at Quincy, Mass., during the bitterly cold weather of December 30. Chief William J. Sands was in command of the fire companies.

The first alarm was sounded from Box 112, corner of Granite and Whitwell Streets, at 7:44 a.m. A second alarm was sent out at 7:48, and a third alarm at 7:55. Flames had obtained great headway and were spreading rapidly, driven by a brisk northwesterly wind, when the first companies reached the scene. Quick work in stretching lines of hose checked the fire and saved a large portion of the piled lumber as well as nearby buildings. Fire in the sheds had already involved large piles of boards and required much overhauling. Firemen were kept busy all day with a detail at the scene the following night.

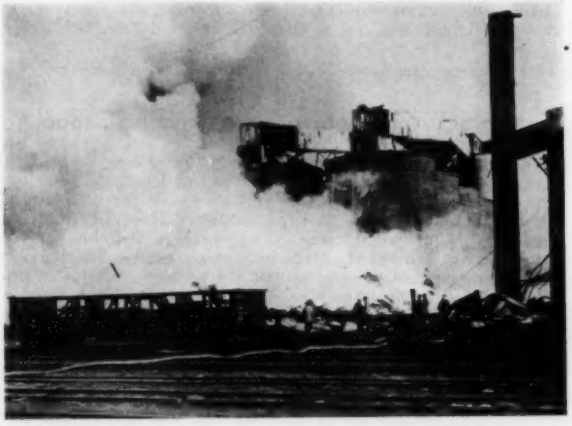
The response of apparatus was as follows: On the first alarm, Engine Company No. 1, Combination Company No. 1, Engine Company No. 4, and Ladder Company No. 1; on the second alarm, Engine Company No. 3, Engine Company No. 5, and Ladder Company No. 3; on the third alarm, Engine Company No. 2 and Ladder Company No. 5. On this alarm Engine Company No. 6 and Ladder Company No. 4 moved from the fire house at Hough's Neck to "cover in" at the Central Fire Station and Engine Company No. 20, of the Boston Fire Department, covered for Engine Company No. 2 in the fire house in the Atlantic section of Quincy.

There were 107 officers and men at the fire, including both platoons of the Quincy department. About 6,750 feet of 2½- and 3-inch cotton rubber lined hose were laid. Five post hydrants were used, the average pressure at the hydrants being 75 pounds from a 12-inch water main. Fifteen lines of hose were laid. The size of nozzles used was 1⅛-inch. Three Eastman deluge sets were also used. Chief Sands was assisted by Deputy Chief Peter J. Creedon and Deputy Chief John L. O'Neil.

The following apparatus units were at the fire: Two 600-gallon White triple combination motor pumpers, three 750-gallon Seagrave motor pumpers, three Seagrave city service ladder trucks, one American-LaFrance city service ladder truck, and one American-LaFrance hose wagon.

The firemen worked most of the day wading in knee deep water amid thick smoke from the burning lumber. A detail of one officer and seven men was left at the scene all night, being relieved every two hours because of the intense cold. Hot coffee was furnished by the Salvation Army. The recall signal was sounded at 7:34 p.m., but Engine 1, a 750-gallon Seagrave pumper, remained at the scene all night, pumping for 25 hours and 55 minutes, returning to quarters at 9:49 a.m. on December 31. The property damage amounted to $75,000. Out of town officials who went to the fire included Chief Daniel B. Tierney, of Arlington; Chief J. Ralph Bacon, of Weymouth; Chief James J. Evans, of Everett, and Fire Commissioner Henry Walton, of Plymouth.

HARRY BELKNAP.



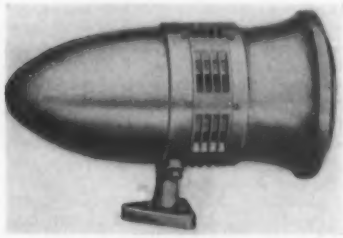
Destruction of Grain Elevator at Kansas City

Fire destroyed a grain elevator at Kansas City on January 22 in which were stored about 300,000 bushels of grain. Firemen fought the fire in sub-zero weather. The resulting damage was estimated at $250,000.

Manufacturers' Announcements

Streamline Siren

The Sterling Siren Fire Alarm Company, Inc., 56 Allen Street, Rochester, N. Y., has issued Bulletin 698 to describe the new Sterling Free Rolling June No. 20 Long Projector. The siren is of streamline design and has a heavy duty, ball bearing motor with aluminum rotor. The projectors have screens to keep out foreign substances. The siren has a penetrating, powerful tone, and the manufacturers claim that this siren has the greatest tone production per horsepower.



Streamline Siren

S & M Lamps

Chief Albert Herring, Murphysboro, Ill., has lights made by the S & M Lamp Company, Los Angeles, Cal., which he has used for nine years. The two side lights have the same globes which came with the lights. Two of the Safety-Lites have red lenses and one is the S & M Oval-Lite.

Veterans of Nine Years' Service at Murphysboro, Ill.

Kentucky Firemen to Hold Training School

The first annual Firemen's Training School is to be held at the Training School of the University of Kentucky, Lexington, on February 12 to 14. It will be under the auspices of the Kentucky Firemen's Association, the University and the Kentucky Municipal League. The lectures will be held at the Training School, the demonstrations at the Department of Buildings and Grounds of the University and the evolutions at the Lexington Fire Department Training Tower. The cooperating organizations are National Board of Fire Underwriters, Western Actuarial Bureau, the Fire Departments of Lexington and Louisville, Ky., Insurance Department of Kentucky and Kentucky Actuarial Bureau. Exhibits of arson pictures are to be by Chief Burris Hensley, Ashland, and Chief Frank Northcutt, Covington. The tentative schedule is as follows:

Tuesday, February 12

8:30-9—Registration—Auditorium, University Training School.
9-9:15—Opening Remarks—Prof. J. W. Manning, Chairman, University Committee on Public Service Courses.
9:15-10—"Training Men in Fire Fighting," A. N. May, State Supervisor, Trade and Industrial Education.
10-11—"Equipment of a Fire Department," Col. Clarence Goldsmith, Ass't. Chief Engineer, National Board of Fire Underwriters, Chicago.
Exhibit—Lexington Fire Department.
11-12—"Maintenance of Fire Apparatus," S. G. Render, Ass't. Chief, Louisville Fire Department.
12-1—Luncheon—University of Kentucky Cafeteria.
1-2—"Modern Methods of Fire Fighting," Chief J. W. Just, Western Actuarial Bureau, Chicago.
2-3—"Salvage," S. G. Render, Ass't. Chief, Louisville Fire Department (illustrated with motion picture).
Demonstration by Lexington Fire Department under direction of Drillmaster J. E. Berryman.
3-4—"Chemistry of Fire," R. N. Maxson, Professor of Chemistry, University of Kentucky.
Demonstration.

Wednesday, February 13

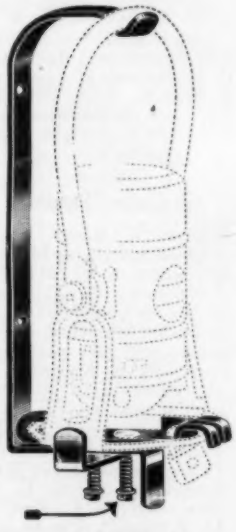
9-10—"Law and the Fireman," R. W. Keenon, Attorney, State Fire Prevention Bureau.
10-11—"Arson and Arson Investigation," W. Malcolm Brown, Deputy Insurance Commissioner, State of Kentucky.
11-12—"Fire Department Records."
12-1—Luncheon.
1-2—"Fire Prevention and Building Inspection," John Krusenklans, Inspector, Louisville Fire Department.
2-3—"Ventilation," W. S. Lipscomb, Secretary, Lexington Fire Department (Demonstration).
3-4—"Exposures," Albert Clements, Engineer, Kentucky Actuarial Bureau.
4-5—Sprinkler Demonstration—Girl's Dormitory, J. L. Thompson, Engineer, Kentucky Actuarial Bureau.

Thursday, February 14

9-10—"Rules and Regulations of a Volunteer Fire Dept.," Russell Dyche, President, Kentucky Firemen's Association.
10-11—"Electrical Hazards," Roy Chanaberry, Manager, Kentucky Electrical Inspection Bureau (Demonstration).
11-12—"Hydraulics," Col. Clarence Goldsmith, Ass't. Chief Engineer, National Board of Fire Underwriters, Chicago.
12-1—Luncheon.
1-2:30—"First Aid and Life Saving," J. B. Allen, Safety Director, Hazard Coal Fields, Hazard.
2:30-4—"Evolutions," Chief Harry K. (Smoky) Rogers, Western Actuarial Bureau, Chicago.

Ecolite Bracket for Lantern

An illustrated folder has been issued by the Economy Electric Lantern Company to describe the Ecolite Bracket which is designed to hold the Ecolite or Majik lantern. The bracket is adapted for fire apparatus where it is essential that the lantern be held rigidly and so that the lantern may be easily accessible.



Ecolite Bracket

Red Hot Steel Doors Delay Firemen

Chicago firemen were forced to batter down a red hot steel door to get at the seat of a fire which swept a divisional freight warehouse of the Wabash Railroad. With the exception of a small two-story portion, the building was one story high.

When firemen arrived they found that heavy steel doors blocked entrance to the building. Additional calls were sent and finally Chief Michael J. Corrigan responded to direct the work. By the time equipment arrived to batter down the doors, the steel was red hot. Several box cars on the loading track were ignited and destroyed.

A watchman was suffocated by smoke. It is believed he died while trying to crawl to a fire alarm box.

Ex-Chief John Kenlon of the New York Fire Department is passing the balance of the winter at Whittier, Cal. While there he expressed the opinion that employment of aircraft as an integral part of every metropolitan Fire Department will come within the next few years.

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Announces the First

STERLING FREE ROLLING JR No. 20
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Streamline— SIREN

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MACKINAW, ILLINOIS
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Designed Especially for Fire Department Work . . . .

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PLATE F-2

RECENTLY a fire truck manufacturer investigated impartially all makes of Fire Department Extinguishers before placing his business. Elkhart received the order.

***Quality means dependability*—and dependability in fighting fires saves lives and protects property.**

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Extinguisher Holders
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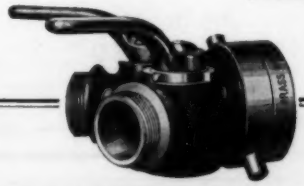

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Recognized throughout America for their outstanding smartness, comfort and durability.

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FIREMEN'S RUBBER BOOTS
Serviceable - Comfortable - Economical
Especially Made for the Purpose

Special Prices to Members of Fire Departments. Write for them.

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First Choice in Many Fire Departments

There seems to be a trend toward the 8 point cap for fire departments. It is one of the wide variety of caps by Brunssen. CATALOG AND PRICES ON REQUEST.

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QUICK-HITCH SUITS
GUARANTEED PRODUCTS

A fireman's warmest friend. Good looking, too. Comfortable in any weather. Material will resist acid and stays soft and pliable. All garments made to special measurements, any size or length. *Try one on now. Send order to—*
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LOW HEAD—CUSHION LINED
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COMFORTABLE AS YOUR OLD FELT HAT; WON'T SHAKE OFF

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Now is the time to start a new Fire Record Book. 3 sizes. 350-700-1400 alarms.

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have data and information which can help you greatly. Get in touch with them.

Westchester Chiefs Discuss Fire Streams

An address on the proper use of water in extinguishing fires was given by A. C. Hutson, Assistant Chief Engineer, National Board of Fire Underwriters, New York City, before the regular meeting of the Fire Chiefs' Emergency Plan, of Westchester County, held at the headquarters of the Exempt Firemen's Association, Yonkers, N. Y., on the evening of Wednesday, January 16.

The meeting was opened by President Krows, who called President Knickerbocker, of the Fairfield County, Conn., Fire Chiefs' Emergency Plan, to sit with him on the rostrum. The members were welcomed by Chief Chambers, of the Yonkers Fire Department, and by Mayor Joseph F. Loehr, of Yonkers, who came in later in the evening. There were 122 present at the meeting.

Mr. Hutson, in his address, emphasized the need of the use of 1½-inch hose, with plenty of streams, rather than heavier hose with a single stream, for quick extinguishment of small fires and the prevention of their spread to greater proportions. This plan causes very much less damage to property and the result is more satisfactory. He described how a fire will follow a draft, which generally is upward, causing the hot gasses to ascend and spread the fire to upper stories. The need was, he said, to get to the seat of the fire, and advised the use of gas masks and helmets in furthering this object. He referred to the good work done by automatic sprinklers in keeping down fire damage.

The address was discussed by Chief Gisborne, of Old Greenwich, Conn., who differed with Mr. Hutson on the subject of ventilation, and by Chief Brennan, of Pelham Manor, N. Y.

There was a delegation present at the meeting from the Mid-Hudson-Harlem Fire Chiefs' Association, headed by Chief Chris Noll, of Poughkeepsie, N. Y., and Chief Joseph N. Murphy, Kingston, N. Y. Chief Murphy is also President of the New York State Fire Chiefs' Association, and asked for the cooperation of all to make the convention of the state chiefs successful.

Among other speakers at the meeting were Chief Burns, Bridgeport, Conn.; Chief Veit, Stamford, Conn.; Rev. Oliver S. Newell and Rev. Father Connoly, Chaplains of the Exempt Association, and others.

The principal speaker of the evening was to have been Chief McElligott, of the New York Fire Department, but his son, Rev. Father McElligott, who represented him, reported that his father was ill in bed with the Grippe, and regretted his inability to be present.

On the invitation of Chief Harvey Dunnigan, it was decided to hold the next meeting of the Plan at fire headquarters, Elmsford, N. Y., on Wednesday evening, February 20. Refreshments were served by courtesy of the Yonker department after the meeting.

Two Alarms Sent for Foundry Fire

Fire started by the combustion of thirty tons of coal in a cellar of a four-story foundry, Toronto, Canada, developed into a second alarm fire of such intense heat that it was impossible for the firemen to enter.

A pedestrian turned in a box alarm. When the first companies arrived in command of District Chief William Corbett, dense clouds of smoke were issuing from all parts of the building and three persons were trapped on a roof. A second alarm was sounded at once and those on the roof rescued by the aerial crew.

When the second alarm companies arrived, the building from the cellar to the fourth floor was involved, and the heat made it impossible for the men to enter.

Men fighting the fire from the rear through a tunnel narrowly escaped death when the floors of the building which were loaded with tons of heavy machinery, collapsed and fell into the basement. At 6 a.m. dense smoke clouds had covered the neighborhood. At 8 a.m., the fire was under control and second alarm companies were sent back. The fire was out at 11:30 a.m.

The building was of the old mill type of brick and wood joists and was erected over fifty years ago.

Chief George Sinclair was in charge, assisted by Assistant Chiefs McLean, Plat. Chief Gunn, and District Chiefs Kearns, Gates and Fox. J. K. Lee.

Fred C. Kennedy, Assistant Chief of the Fire Department of Indianapolis, Ind., was appointed Chief by Mayor Kern, the first of the year in place of Chief Harry E. Voshell, retired.

Fire Losses Reduced 13 Per Cent

Estimates made by the National Board of Fire Underwriters show that fire losses for the United States during 1934 were 13.02 per cent lower than those for the previous year.

The following table shows the losses for each month of 1932, 1933 and 1934:

	1932	1933	1934
January	$39,224,783	$35,547,565	$28,002,583
February	39,824,622	36,661,481	31,443,484
March	49,189,124	35,321,248	31,312,359
April	43,822,233	27,825,970	22,028,943
May	39,270,524	24,338,714	25,271,459
June	34,338,670	21,578,609	20,005,692
July	32,982,434	20,004,049	19,484,027
August	31,425,931	23,626,505	19,613,146
September	30,972,318	20,447,571	16,243,870
October	30,734,458	21,465,382	18,236,272
November	31,167,708	22,454,200	20,114,346
December	39,190,506	27,626,439	23,896,879
12 Months	$442,143,311	$316,897,733	$275,652,000

Fire losses in Canada for 1934, as computed by the *Monetary Times*, also showed a decrease. The total for the last year was the lowest since 1928. There were no conflagrations in any province for the year, but barn fires continued to be relatively numerous.

Following is a tabulated report of fire losses in Canada by months for the past two years:

	1934	1933
January	$2,873,950	$2,740,800
February	2,091,000	2,806,425
March	2,481,125	3,283,150
April	2,337,125	2,278,175
May	2,098,600	2,172,800
June	2,082,350	2,211,125
July	2,983,800	3,147,200
August	2,122,650	4,063,700
September	1,676,000	5,110,575
October	2,144,500	2,885,700
November	1,601,025	2,354,450
December	2,281,545	3,014,325
Totals	$26,773,670	$36,068,425

John J. Kelly New Chief of Scranton

John J. Kelly has been appointed Chief of the Fire Department of Scranton, Pa., to succeed Chief Edmund B. Lewis, retired (as reported in the last issue of this journal).

Chief Kelly joined the paid Fire Department of Scranton in the year 1910 as a steam fire engineer. On April 1, 1916, he was advanced to the rank of Captain. His next promotion, that of Assistant Chief, came to him on August 1, 1924. On August 1, 1926, he was demoted to the rank of Battalion Chief. He remained in this position until January 16, 1935, when, on the retirement of Chief Lewis, he was appointed as head of the Fire Department, with the title of Superintendent of Fire, as the Chief in Scranton is designated.

Chief John J. Kelly

Firemen Overcome by Chlorine Gas

Chief Northcutt and two firemen of the Covington, Ky., Fire Department were removed to a local hospital suffering from chlorine inhalation when they attempted to enter a chlorine gas filled room protected only by smoke masks.

A cap had been knocked off a chlorine tank at a Y. M. C. A., where the chlorine was used for disinfecting a swimming pool. The Fire Department was called. Chief Northcutt and two men wearing the masks entered the room to rescue Y employees but they were soon overcome. Other firemen wearing gas masks rescued the men and then entered the basement and removed the chlorine tank to the street.

Larry F. Donovan.

FALSE ALARMS

WRONG TIME

The Chief, because of his official position, had been able at various times to obtain passes for any of the local theatres. His wife expected her young sister for a visit, and so the Chief was delegated to secure two passes. Because of the popularity of the show, the only two seats available were in different rows, but behind each other.

Wishing to be next to her sister, the visitor turned and cautiously surveyed the man in the next seat. Finally she leaned over and timidly said:

"I beg your pardon, sir, but are you alone?"

The man, without turning his head in the slightest, but twisting his mouth to an alarming degree, and shielding it with his hand, muttered:

"Cut it out, kid—cut it out. My wife's with me."

You can't tell much about a display of authority. Many a man thinks he's doing a fine bit of mule driving when the mule is just hurrying home on his own account.

WELL ACQUAINTED

The reporter back from his vacation, called at the fire station to tell the desk man, who was a fishing enthusiast, of the luck that he had had. Soon the conversation was about fish.

"Did you fish with flies?" the visitor was asked.

"Fish with them?" he questioned scornfully. "We fished with them, camped with them, ate with them and slept with them."

Many a man who is satisfied with himself is awfully disappointing to other people.

SCORE TIED

It was his first night on duty as a member of the police force, but none the less it had its excitement. He discovered smoke pouring out of the basement of the Army and Navy store. He ran to the fire station which was but a short distance away.

Two bunkies were upstairs about to get to bed. They heard the policeman say something about Army and Navy.

One of the bunkies shouted down the stairs, "Which one is ahead?"

People will never stand for the return of the old saloons. They're having too much fun in the new ones.

ANIMAL SPECIE

Salesmen were eager to secure what little business there was to be had. When a pumper was wrecked beyond repair and the city advertised that it was in the market for a new one, the Chief soon had an incessant influx of salesmen who vied for the honor of taking him out to lunch, or even dinner. He excused his many absences from home by telling his wife about these appointments.

On a Sunday afternoon, the youngster was taken by his mother to see the animals in the zoo. He stood before the cage of the spotted leopard for a few minutes staring intently. Then he asked his mother:

"Say, Ma, is that the Dotted Lion that everybody wants Dad to sign on?"

WRONG SIGN

A boy of the very smart, adolescent age passed by the fire station, and as he did he struck the old, lovable dog that made his home there.

A fireman rushed out and shouted, "What do you mean kicking that dog? He don't even bite."

"Yes, but he raised his leg, and I thought he was going to kick me."

The Grand Canyon stamp may be very pretty but when there's a bill in the envelope it only adds to that empty feeling.

A WARNING

The quiet of the fire station was broken by a loud ring of the telephone. The desk man lifted the receiver.

"Is that the fire station?" asked a timid voice.

"Yes," said the fireman eagerly.

"Well," continued the one on the other end of the line, "I have just had a new rock garden built and I've put in some new plants—"

"Where's the fire?" asked the desk man eager for prompt action.

But the voice continued, "Some of these new plants are very expensive and—"

Again the fireman interrupted, but this time with a show of temper.

"Look here, you want the flower shop."

"No, I don't," said the voice. "I was coming to that in a minute. My neighbor's house is on fire, and I don't want you firemen to tread all over my garden when you come here."

We've just made an arrangement with our laundry. We are to send back all their pins if they return all our buttons.

Drawing by "Art" Espey

Fair Buff: "And do the men have to polish all that brass?"
Fireboat Captain: "Yep! That's where the rub comes."

AFTER all, a good badge is a sensible investment. Not everyone can wear a fireman's emblem of service. You men who have devoted your lives to saving life and property should be proud of your badge.

You will be if you wear a BRAXMAR BADGE. Over fifty-five years of experience goes into every badge you buy.

Catalog on request.

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REDUCE WATER DAMAGE AND INSURANCE RATES

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SHUREDRY

is the cover that fire chiefs all over the country have endorsed for superior service. Made of our special process chemically treated canvas, they resist both heat and cold. SHUREDRY covers will not crack or split on your storage shelves—easy to handle—give better service. SHUREDRY covers pay for themselves several times over in reducing water damage and are an essential part of the equipment of progressive chiefs everywhere.

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COMBINATION BRASS NOZZLE FOR 50 FOOT STREAM OR LONG COARSE SPRAY
COMBINATION BRASS HANDLE FOR CARRYING TANK AND FOR HOLDING PUMP
HEAVY CAST BRASS QUICK OPENING WATER TIGHT FILLER CAP WITH REMOVABLE BRASS STRAINER. CAP HAS INSIDE CHAIN TO PREVENT LOSING
EXTRA HEAVY TANK HAS SOLID BRASS BOTTOM. ALL JOINTS LOCKED AND SOLDERED. BUILT STRONG.
PATENTED
INDIAN

FORM-FITTING. VENTILATED TANK GIVES A CONSTANT CIRCULATION OF AIR BETWEEN TANK AND CARRIER'S BACK. IT PROTECTS THE BACK FROM THE COLD WATER AND MOISTURE IN THE TANK AND KEEPS THE BACK WARM AND DRY. THE FORM-FITTING SHAPE OF THIS TANK FITS THE BACK PERFECTLY. SNUG AND FIRM AND FEELS GOOD.

THE FIRE PUMP THAT USES ONLY CLEAR WATER

THE SMITH **INDIAN** FIRE PUMP

Tank is Curved to Snugly Fit the Back and Pump Has No Leather Plunger to Give Trouble

There is more than one reason why fire department experts designate THE INDIAN FIRE PUMP as standard equipment. It is the culmination of years of study in just what is required of a portable type fire fighter. We have continually improved the INDIAN and say TODAY it is the most efficient equipment, and that many thousands are in use by FIRE DEPARTMENTS all over the country. Use an INDIAN and you will agree this is no exaggeration.

Strong construction and careful workmanship insure an INDIAN FIRE PUMP always being ready for use. THEY NEVER FAIL TO WORK!

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Carrying rack of unbreakable malleable iron which bolts to running board or floor of truck makes outfit complete. Straps hold pump in place. Heavy, black japanned buckle instantly locked or unfastened.

- Easily, quickly refilled at stream, with pail or at hydrant.
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Scale models of Fire Apparatus make excellent radio and mantel pieces. Gifts for Fire Department Officers. Fine for displays for advertising purposes. Excellent for Fire Department Schools of instruction. Your choice of material. Harvey H. Larrabee, 805 Virginia St., Jackson, Mich.
2

Salesman Wanted

Fire hose Salesman wanted by old reliable manufacturer. State territory you can cover and other details. Address: Box No. 745, c/o FIRE ENGINEERING, 24 W. 40th St., New York.
1-2-3

For Sale

Federal Tyfon Fire Alarm Horn No. 2 size used only as a demonstrator. Perfect condition, was priced at $250—special price quick sale $75. Address: Box No. 750, c/o FIRE ENGINEERING, 24 W. 40th St., New York City.
3

For Sale

American LaFrance Fire Truck. 350 gallon rotary pump. Paint and tires like new. Numerous accessories included. Must be seen to be appreciated. Address: Windber Fire Co. No. 1, Windber, Somerset County, Pa.
2

CONVENTION DATES

Feb. 12-14—KENTUCKY FIREMEN'S TRAINING SCHOOL. 1st Annual School, University of Kentucky, Lexington, Ky. Address, W. S. Lipscomb, Secretary, Kentucky Firemen's Association, Fire Headquarters, Lexington, Ky.

Feb. 20—FIRE CHIEFS' CLUB OF RHODE ISLAND. Annual Banquet and Installation of Officers, Narragansett Hotel, Providence, R. I. Secretary, A. Robert Black, 71 Wellesley Ave., Providence.

Feb. 20—FIRE CHIEFS' EMERGENCY PLAN (of Westchester County, N. Y.)—Regular Meeting, Fire Headquarters, Elmsford, N. Y. Secretary, Walter M. Dawkins, 72 Thatcher Street, Harrison, N. Y.

Feb. 27—FIRE CHIEFS' EMERGENCY PLAN OF FAIRFIELD COUNTY, CONN. Regular meeting, Fire Headquarters, Long Hill, Conn. Secretary, John Moehring, Toms Road, Stamford, Conn.

March 5-7—GREATER NEW YORK SAFETY CONFERENCE. Annual Conference, Pennsylvania Hotel, New York City. Address, Julien H. Harvey, National Safety Council, 9 East 41st St., New York City.

April 17-20—ARIZONA STATE FIREMEN'S ASSOCIATION. 12th Annual Convention, Yuma, Ariz. Secretary-Treasurer, H. W. Reggin, Prescott, Ariz.

April 24—FIRE CHIEFS' EMERGENCY PLAN OF FAIRFIELD COUNTY. Regular Meeting, Danbury, Conn. Secretary, John Moehring, Toms Road, Stamford, Conn.

May 8-10—GEORGIA STATE FIRE COLLEGE. Fire College, Atlanta, Ga. Address, Harry Phillips, Assistant Fire Marshal, Dept. of Fire, 166 Alabama St., S. W., Atlanta, Ga.

May 13-17—NATIONAL FIRE PROTECTION ASSOCIATION. 39th Annual Meeting, Atlanta, Ga. Secretary-Treasurer and Managing Director, Franklin H. Wentworth, 60 Batterymarch Street, Boston, Mass.

June 5-6—IOWA ASSOCIATION OF FIRE FIGHTERS. 13th Annual Convention, Davenport, Ia. Secretary-Treasurer, William Hottle, Des Moines, Ia.

June 11-14—ILLINOIS FIRE COLLEGE. 11th Fire College, under auspices of Illinois Firemen's Association. Address, Assistant Chief Roy W. Alsip, Secretary, Illinois Association, Fire Department, Champaign, Ill.

June 19—NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. 62nd Annual Convention, Berea, Ohio. Assistant Secretary, R. T. Boone, Second Assistant Chief, Berea.

June 19-21—MARYLAND STATE FIREMEN'S ASSOCIATION. 43rd Annual Convention, Oakland, Md. Secretary, George R. Lindsay, Hagerstown, Md.

June 20-22—NEW MEXICO STATE FIREMEN'S ASSOCIATION. 13th Annual Convention and 6th Fire College, Santa Fe, N. M. Secretary-Treasurer, Theodore A. Rosenwald, Albuquerque, N. M.

June 25-26—SOUTHEASTERN ASSOCIATION OF FIRE CHIEFS. 8th Annual Convention, Hotel Dempsey, Macon, Ga. Secretary-Treasurer, Chief R. S. Baughan, Norfolk, Va.

June 25-27—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 13th Annual Convention, New Bedford, Mass. Headquarters, Hotel New Bedford; Exhibits, New Bedford Armory. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass.

July—MICHIGAN STATE FIREMEN'S ASSOCIATION. 61st Annual Convention and 7th Annual Fire College, Detroit, Mich., probably in middle of July. Secretary-Treasurer, Statistician and Director, Fire College, Charles V. Lane, Charlotte, Mich.

July 16-17—MARITIME FIRE CHIEFS' ASSOCIATION. 21st Annual Convention, Moncton, N. B. Secretary-Treasurer, Capt. K. J. MacRae, Salvage Corps and Fire Police No. 1, Saint John, N. B.

July 29-Aug. 1—WEST VIRGINIA FIRE SERVICE EXTENSION SCHOOL. 5th Annual School, West Virginia University, Morgantown, W. Va. Address Secretary, W. Va., Fire Chiefs' Ass'n., C. B. Powell, Romney, W. Va., or Prof. Lewis V. Carpenter, Director, at University.

July 30—WEST VIRGINIA FIRE CHIEFS' ASSOCIATION. 4th Annual Meeting, West Virginia University, Morgantown, W. Va. Secretary Chief C. B. Powell, Romney, W. Va.

Aug. 18-21—NEW YORK STATE PERMANENT FIREMEN'S ASSOCIATION. 17th Annual Convention, Binghamton, N. Y. Secretary-Treasurer, Frank A. Emden, 1403 Mather Ave., Utica, N. Y.

Sept. 2-5—KENTUCKY FIREMEN'S ASSOCIATION. 16th Annual Convention, Georgetown, Ky. Secretary, W. S. Lipscomb, Fire Department Headquarters, Lexington, Ky.

Sept. 3-6—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 13th Annual Convention, Riverside, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth Ave., San Diego, Cal.

Oct. 1-3—FIREMEN'S ASSOCIATION OF PENNSYLVANIA. 56th Annual Convention, Connellsville, Pa. Secretary, Charles E. Clarke. Wayne, Pa.

Fairfield County Chiefs Discuss Hose Layouts

Acting Battalion Chief Lehman, of the New York Fire Department, was the principal speaker at the January meeting of the Fairfield County Fire Chiefs' Emergency Plan held in the Sound Beach Fire Headquarters, Old Greenwich, Conn., on Wednesday evening, January 23. Despite a snow fall of 12 inches, thirty-eight members and guests attended. Chief Lehman related a number of his experiences in the Harlem section of the city of New York, and told of instruction given to him at the Fire College in his early days in the department. He was taught that in responding to a fire alarm four important things were essential. 1. Saving of human life. 2. Hitting the fire. 3. Confining the fire. 4. Extinguishing the fire. He gave advice in "hitting the fire" and confining the fire, and told how his department handled various cellar, loft and apartment fires. An important bit of advice was given the officers by Chief Lehman in entering blazing buildings. He advised the hoseman to tilt the hose to an angle of 32 to 45 degrees and hit the ceiling, which would provide them with a water screen and enable them to edge into the burning building gradually. He also advised the men never to enter a cellar of a burning building without a charged hoseline.

Chief Daniel Knickerbocker of Springdale, Conn., presided over the business meeting of the Plan. The question box included two questions: The first, a lengthy one, relating to a layout in which a booster line is used to extinguish a fire confined to one room of a two story building, siamesing two lengths of 2½-inch hose, one line being held in reserve while the other is used to refill the booster tank. It was the consensus that this was a workable layout, and one which would hold the water damage to a minimum, at the same time being prepared for a possible spread by having a 2½-inch line in readiness. Company in question has no 1½-inch hose and they questioned the workability of this layout under their circumstances.

The second, another lengthy question asked by a company purchasing new apparatus whether one 1,000 gal. pumper would be better than two 600 gal. pumpers. Company is in small town with 100 hydrants, but covers territory of seven miles, six miles of district being without hydrants. The average hose layouts were from 2,000 feet to 4,000 feet. It was the unanimous opinion of the officers present that two 600 gal. pumps would suit their needs the best. Water supply, relays, rural roads, double booster capacity, double hose capacity, double protection in case one truck is at fire all were brought out as arguments in favor of two 600 gal. pumpers.

Chief Krows, of Hastings-on-the-Hudson, President of the Fire Chiefs Plan of Westchester County, N. Y., was a guest of the evening.

The next meeting of the Plan will be held at Long Hill, Conn., as the guests of Chief Charles Kellogg and the Long Hill Fire Dept.

Rhode Island Chiefs Re-elect Officers

Chief Frank Charlesworth of the Providence, R. I., Fire Department was re-elected for his eight term as President of the Fire Chiefs' Club of Rhode Island at the annual meeting held at Providence, January 10.

The other officers re-elected are A. J. Cote, Woonsocket, First Vice-President; Elmer A. Capwell, Anthony, Second Vice-President; A. Robert Black, North Providence, Secretary; Arthur J. Billinge, Norwood, Treasurer.

The annual banquet and installation of officers will be held February 20 at Narragansett Hotel, Providence.

Plans for a new fire station were approved by the Village Council of Oak Harbor, Ohio.

Chief Madruga, Centerville, Cal., was elected President of the Alameda County Firemen's Association at the annual meeting held in Emeryville. Carl Coeppert, Deputy State Fire Marshal was elected Secretary for his fifth successive term.

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We will then request the leading manufacturers of such equipment to send you descriptive literature and prices direct without any cost to you or obligation whatever.

The manufacturers we notify will gladly do this because they are advertisers and good friends of this publication and want to cooperate with our readers in every way possible in the improvement of their departments. So help yourself!

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8 Alarm Systems, Municipal Telegraphic
9 Alarms, Thermostatic
10 Asbestos Clothing
11 Badges, Insignias, Buttons, etc.
12 Banners, Trumpets, etc.
13 Battery Jars
14 Battery Zincs for Fire Alarm Batteries
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113 Whistles, Fire Alarm, Compressed Air
114 Whistles, Fire Alarm, Steam
115 Whistles, Fire Apparatus
116 Wrecking Trucks

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